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ABSTRACT

This publication consists of two binders that contain 74 brief reports on innovative educational efforts underway in UNESCO member nations in Asia. It is intended primarily to aid those individuals who are engaged in planning and implementing innovative educational programs in developing nations. Individual program reports range from two to seven pages long and vary considerably in content depending on the nature of the program they describe. However, with few exceptions, each report includes a brief discussion of the program's background, a list of the program's objectives, a description of the program and its implementation, and the name and address of a contact person who can provide more detailed information on the program. Reports are included for programs from the nations of Thailand, Singapore, Sri Lanka, the Philippines, Nepal, India, Japan, Bangladesh, Pakistan, Iran, Malaysia, Indonesia, Korea, China, Afghanistan, and Australia. (JG)

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Inventory of Educational Innovations in Asia

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

ACEID
Asian Centre of Educational Innovation for Development

UNESCO

Asian Centre of Educational Innovation for Development
Unesco Regional Office for Education in Asia
C.P.O. 1425, Bangkok (Thailand)

The Inventory of Educational Innovations in Asia (IEIA) brings together brief reports of innovative efforts underway in the Member States in Asia, for the benefit of those who in their search for solutions to urgent problems are engaged in planning and implementing innovative educational programmes.

Additions to this portfolio will be issued from time to time and the binder is provided with the first despatch in order to facilitate collection of additional reports as they are issued.

The top-right corner shows the serial number and each report is numbered sequentially. Each report is also numbered by country. This simple numbering system, rather than a classification scheme, has been adopted to facilitate the receiver's classification of the reports to suit the receiver's need and use.

ACEID WILL WELCOME COMMENTS, AND ALSO CONTRIBUTIONS FOR POSSIBLE INCLUSION IN THE INVENTORY.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Despatch No. 1-75

EIA Nos. 1-56

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: THAILAND

EIA No: 1

No: 1

Date of issue: December 1975

Title: FUNCTIONAL LITERACY AND FAMILY LIFE PLANNING

In 1970, the Division of Adult Education of the Ministry of Education in Thailand initiated a new literacy project. Previous programmes had succeeded in literacy skills, but fallen short on functional aspects. The new project, undertaken in co-operation with World Education Inc., aims at educating illiterate adults to live efficiently and productively in their surroundings.

Teams of educators conducted surveys in five villages to determine the interest, activities, and vocabulary of potential participants. Initial literacy levels were established through objective tests. A curriculum committee, composed of educators and representatives of various governmental agencies, designed the curriculum; the actual writing of materials was done by a working group from the Division of Adult Education and the supervisory unit.

The curriculum was built around a core of 73 concepts bearing on common misconceptions or problems. Content, integrated within the framework of family life planning, covers four broad areas: (i) earning a living; (ii) health and family planning; (iii) family economics; and (iv) civic responsibility.

The detailed syllabus is based on the survey findings as well as on the national plans of the ministries of agriculture, health, and economic affairs. Each lesson unit conveys a specific functional skill or information. An early lesson, for example, shows how planting beans improves the soil because bean roots contain fertilizer.

The objectives of the project are:

(a) To provide multifaceted information of immediate functional value

(b) To achieve a standard level of competence in literacy skills.

(c) To bring about changes in attitude and practice in planning for the family and in such related fields as nutrition, health, and farming.

The traditional literacy primer is eliminated:

A bulky primer can be a psychological deterrent to a neo literate. The Thai planners decided to begin with empty looseleaf binders into which the learner would insert punched lesson cards. The full course includes some 200 cards covering the four topics. Students receive only one card at a time and create their own textbooks by adding cards as they master them.

The card system also provides flexibility in adjusting to local interests and conditions since cards can be re-sequenced or new cards substituted at much less cost than reprinting a whole primer.

On one side of each discussion card is a photograph or drawing of a familiar village problem or activity, with key words under it. The reverse side has a text written to reinforce possible conclusions of the discussion. Teachers had learners use this as reading material. Key words, printed in the margin, are used to fill in blanks.

Literacy and numeracy exercises are on other cards, color coded blue (literacy) and green (numeracy) for easy identification.

Motivating and involving adult learners:

The class begins with a discussion of the problem depicted in the illustration or photograph, and learners are encouraged to express their own ideas and speak about their own experiences. The teacher's manual offers suggestions which help the teacher get participants more deeply involved in the discussion.

Discussion continues until learners have fully grasped the concepts, which may take from fifteen minutes to half an hour.

Focusing on a different topic at each session helps to maintain variety and to provoke continued interest.

Project administrators have found that full mastery of the discussion technique, which they consider essential to the adult learning process, is not easy for teachers to achieve. They have therefore undertaken a series of teacher-training workshops to cope with the problem.

Literacy skill development:

The adult learner decodes photographs or drawings as preparation for learning to decode written symbols. Several key words are introduced at each lesson; over a period of time, the full alphabet and all possible sounds and combinations are taught. The understanding of problems and picture association are important in learning the key words and the text as a whole.

To ensure that new skills are not lost, the Ministry encourages communities to set up and maintain village newspaper reading centres.

Teacher's Role:

The traditional role of the teacher teaching the three R's and handling the class all the time by herself has been changed. The role of the teacher in the Thai functional literacy programme is:

(i) To facilitate and encourage group discussion

(ii) To read the text to the class several times each day.

(iii) To assist adult students with literacy and numerous exercises.

(iv) To find supplementary information needed for class study.

(v) To invite other technicians to provide further practical knowledge.

Evaluation:

Evaluation of the project is systematically carried out in three phases: (i) preliminary survey to aid programme planners in setting up realistic objectives; developing curricula and materials; and training teachers; (ii) periodic follow-up to permit continuous improvements in teaching and learning process; and (iii) final evaluation to determine the project's effectiveness.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: SINGAPORE

EIA No: 2

No: 1

Date of issue: December 1975

Title: EDUCATION FOR LIVING PROJECT

"Education for Living" is a project of the Ministry of Education intended to help the younger generation in Singapore to grow up as responsible citizens equipped mentally and physically to cope with the rapid changes in an urban and industrial society. It is envisaged that by merging the best in the traditions and civilizations of both East and West, this project would inculcate in the young citizens the right values and develop a strong sense of identity with Singapore. It is also the aim of this project to foster in the young knowledge of the fundamentals of human relations, awareness of their economic and social environment, and understanding of the world in which they live.

In the development of this project the following principles are taken into consideration:

a. That the nation is more important than the family and the group more than the individual.

b. That the development of the child as a person shall be guided by universal values with an Asian focus.

c. The development of the child as a citizen shall emphasize the principles of equality, justice and brotherhood in a multi-racial society.

The objectives of the project are as follows:

a. To make pupils fully aware of the purpose and importance of nation-building and of their responsibility as loyal and patriotic citizens.

b. To guide pupils toward a clearer understanding of their historical background and geographical environment and of universal values as exemplified in both Eastern and Western traditions.

c. To make pupils understand the inter-dependence of man and his social and natural environment, and to help them to lead meaningful and useful lives in a rapidly changing industrialized society.

d. To help pupils develop the desirable attitudes and qualities of mind and character that are implied in the education programme of Singapore as a whole.

At the Primary I and II levels, Education for Living is essentially a Civics course, whereas from Primary III onward, it is an integrated course involving Civics, History and Geography. The emphasis is placed on Civics and moral education for the young.

The medium of instruction is the mother tongue of the child, that is, Chinese (Mandarin), Malay, and Tamil for children of these ethnic groups.

A series of Education for Living textbooks is being developed. Each book deals with the following main themes: Our Nation, Our Family, Our School, Our Society, and Our Life. Each textbook is accompanied by a teacher's handbook which specifies teaching aims and expected outcomes. Suggestions are made for preparatory, development, and follow-up actions.

Integration with other subjects in the school curriculum is encouraged. This is achieved by relating the learning of education for Living to musical and creative activities. Educational television and other audio-visual aids are used to make the teaching interesting to the pupils.

Formative evaluation is a built-in mechanism of the project. It takes the form of teacher opinion surveys, try-outs of draft materials, testing of pupils' attitudes and knowledge and teacher's reports on pupil behaviour.

In-service training of the teachers is conducted periodically. The courses aim at familiarizing the teachers with various aspects of the development and implementation of the project. Other forms of teacher involvement have also been effected.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: SRI LANKA EIA No: 3

No: 1 Date of issue: December 1975

Title: INTRODUCTION OF PRE-VOCATIONAL STUDIES INTO THE CURRICULUM

Curricular relevance was the keynote of the educational reforms that were ushered in during 1972 in Sri Lanka. It was in conformity with this overriding principle that pre-vocational subjects were introduced into the junior secondary school (Grade 6 to 9) as part of a common curriculum for all pupils.

The programme was designed to arrest the alienation of the school graduates from the community and to make the integration of the school and the community real and effective. It was also intended to give the pupils a better understanding of the country's resources and to provide them with the knowledge and skills that may eventually be necessary to employ them.

The study of pre-vocational subjects extends over a period of four years, or twelve school terms. The schools are required to teach a combination of subjects which would require 24 terms of study. Every week 6 periods, each of 40 minutes' duration, are being utilized for the teaching of these subjects.

The pre-vocational programme is inter-disciplinary and is a part of general education. As such, it is not like the purely vocational programmes which aim at preparing pupils for difinite vocational or occupational roles.

The pre-vocational studies have been designed to enable the students:

(a) to execute selected manual skills related to vocations with an appropriate degree of proficiency;

(b) to comprehend appropriate aspects of selected vocations;

(c) to acquire knowledge of the major vocations practised in the community;

(d) to be aware that knowledge gained in other studies such as mathematics, science, etc. can be applied in the study of vocations; and

(e) to feel confident and proud of their ability to participate in the production of marketable goods or services.

The schools have been given the freedom of selecting the vocations for study in consultation with the school community. Not only is the community consulted in the selection of pre-vocational subjects to be offered but the hitherto unutilized educational potentials in the school community are utilized to the fullest in:

(i) assisting teachers in the formulation of curriculum materials;

(ii) assisting teachers in classroom operations;

(iii) assisting teachers and the Curriculum Development Centre in the assessment of pupil performance; and

(iv) assisting the teacher advisors in the in-service education of teachers.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PHILIPPINES

EIA No: 4

No: 1

Date of issue: December 1975

Title: COMMUNITY-BASED TEACHING PROGRAMME FOR COMMUNITY HEALTH

Background:

The Comprehensive Community Health Programme (CCHP) is under the University of the Philippines system. Established in 1976 by Dr. Paulo Campos with financial assistance from the Rockefeller Foundation the CCHP was an answer to the commitment of the University to programmes that are community-based aimed at helping both the community and the students of the University as well.

Objectives:

The primary aim of the CCHP is to find out how to deliver health care to a community efficiently within the available local resources taking into consideration the socio-economic and cultural constraints within the community.

There are three (3) objectives of the CCHP within this primary aim:

1. Research - To determine the factors that effect the delivery of health care to a community, whether urban or rural; and relate these to the greater part of the country.
2. Services - To actually extend services to typical areas, both urban and rural, to serve as models.
3. Training - To train health workers, both professional and non-professional, who will be functional in such a model health care delivery system.

Implementation:

The three (3) objectives mentioned above are being attained according to the following principles and philosophies:

(a) Health care is best delivered through multi-disciplinary group working on the basis of "team-work".

(b) Community participation must be cultivated and sustained in the delivery of health care.

(c) Emphasis should be given to discuss prevention and health promotion consistent with a total and comprehensive health care.

(d) Local resources must be utilized, especially the existing health units of the Department of Health and other government agencies and the indigenous health workers.

The model for the health care delivery system is based on the levels of health care determined primarily by the size of the population and its geographic distribution, and the number of health workers. Thus, there are six (6) basic levels: home level, barrio level, municipal level, district level, provincial level, regional and national levels.

In all the levels of health care, the different basic health services are provided for a total and comprehensive coverage. These are: medical care, environmental health, communicable disease control, maternal and child health, including family planning and nutrition, dental health, pharmaceutical services, nursing services, health education, control of chronic diseases and mental and rehabilitation, social services and vital statistics.

The CCHP also conducts researches on the different problems involved in the delivery of health care. Some of the on-going researches are:

(i) A study of a new health care system that would be feasible and effective within the context of the socio-economic conditions of the country.

(ii) A study of an integrated approach to maternal and child health, family planning and nutrition problems in Bay and Victoria, Laguna.

(iii) An evaluation of the CCHP Multi-purpose Health Worker Training, Pilot Training and Mother's Classes Training Programme.

(iv) A study of a more effective and economic system of drug distribution and dispensation for rural communities in the Philippines.

(v) A proposed dental health care programme for Bay Community, Laguna.

Training programmes have also been set up, both for the professional and non-professional levels. In the professional level, graduates and undergraduate students such as the U.P. College of Medicine field fourth year medical students undergo several months of training at the CCHP. The concept of teamwork is upheld in training, e.g. the veterinary students work hand-in-hand with the nursing and community development students in the barrios. Training programme progressively developed to include lower years. Examples of this are the College of Medicine's volunteer programme for first year students and the College of Agriculture's Social Orientation class students in first year who are sent to the CCHP for training.

In the non-professional level, the CCHP provides for the training of multi-purpose health workers, single-skilled workers and other auxiliaries within their respective fields. The multi-purpose health workers are taught about simple medical and nursing care by the doctor and the nurse, environmental senitation, health education and record-keeping by the B.X. Public Health graduate, common pharmaceutical terms by the pharmacist, and community organization by the social work and community development instructors. There are on-going classes being conducted by the CCHP for mothers, adult illiterates, "hilots", dental aides, pharmacy aides, laboratory aides and school teachers.

It is planned to establish a closer co-ordination with the different units of the University of the Philippines and make them more actively involved in trying to develop more effective strategies, organizations, etc. for teaching community health during field work rotation.

Inputs:

The project operates on a yearly budget of P200,000.00 for the salaries of personnel and P20,000.00 for maintenance of operating expenses. All of these come from the University of the Philippines.

Under the direction of the President of the University of the Philippines with the advice of an Advisory Council and the members of the Comprenensive Community Health Service Board, the Director of the CCHP manages the whole project. He is assisted by three (3) deputy directors, one (1) for training and research, the other for urban division and the third is for rural division.

The Development Academy of the Philippines (DAP) is presently conducting an evaluation of the project.

Key Innovative Features:

1. The CCHP follows a unified community programme concept where the community is the centre of care, the family is the basic unit of care, and the approach is comprehensive in coverage and multi-disciplinary in nature.

2. The idea of extramural teaching of community health.

3. Training and utilization of paramedic health workers in order that they will be able to assist the population to reach and maintain standards of health and living conditions comparable to that of developed countries.

4. Provides new work opportunities for the members of the community.

5. Strengthen the popular confidence of the members of the community in the government and the health services provided them.

Source: "Inventory of Educational Innovations", Department of Education and Culture, National Research and Development Centre for Teacher Education, Manila, Philippines

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)
Country: NEPAL
EIA No: 5
No: 1
Date of issue: December 1975

Title: DEVELOPMENT OF A FIELD-ORIENTED SEQUENCE IN THE PRIMARY TEACHER TRAINING PROGRAMME.

Background

In 1971, Nepal embarked on a programme to improve the quality of education by implementing the National Education System Plan (NESP). The NESP has greatly increased the demand for well qualified, well trained teachers at the primary and secondary levels. This presented a major challenge to the Institute of Education to provide teachers who can make education more practical and relevant for their students. Despite efforts by the Institute of Education to meet these demands, it was felt that trained teachers were not performing adequately in the field. There was, therefore, a clear need to find more effective ways to train teachers.

In June 1974, an action-research project proposal was developed in response to this need, which focused on the improvement of the process of training primary teachers.

The present curriculum for teacher education has been heavily influenced by work done in other countries, but has never been evaluated in terms of the real needs and demands of the field. Therefore a major emphasis of the project was to develop a programme to meet to particular and unique situation in the primary schools of Nepal.

Scope

The project developed objectives for the second semester of the two-semester primary teacher training programme. These objectives were implemented initially with an experimental group of pre- and in-service primary teachers on one of the campuses of the Institute of Education outside of the capital city.

Objective

A. To develop, implement, and evaluate a practical "Field-Oriented" Sequence in the primary teacher training programme.

B. To develop a model process for teacher education programme development, implementation and evaluation.

C. To develop in staff the attitudes and skills required by the objectives of the programme.

Implementation of the Project:

The project has been divided into different phases as follow:

A. Background Research Phase

The purpose of this phase was to provide a detailed description of the teaching/learning environment of the primary schools essential for developing relevant and realistic programme objectives for primary teacher training. Data was collected by observing primary school-classes, and interviewing teachers, parents, and education officers. The results of this background research phase are presented in the report published by the Research Division of the Institute of Education.

B. Development, Implementation and Evaluation of Programme Objectives.

On the basis of the information gathered during the background research phase, the goals of NESP, and the general objectives of the teacher education programme, a list of competencies for effective teaching in the primary school was developed. These competencies then became the objectives for the second semester of the primary teacher training programme.

These objectives were then implemented by two Institute of Education staff members with 28 randomly selected pre- and in-service students at one of the outlying campuses of the Institute.

At the completion of the semester, classes of the experimental group and a control group students were systematically observed during practice teaching and tests administered to provide information for the revision of the objectives and the general improvement of the programme.

C. Follow-up

A follow-up observation and study of the trainees from the experimental and control groups will be done for the purpose of measuring the longer range effectiveness of the training. A group of untrained teachers will also be observed if necessary. The follow-up will be done approximately three months after the trainees have returned to their jobs and will include areas covered in the initial evaluation as well as activities and behaviors that can be observed only after a teacher has had ample time to work with the children and his environment.

The information gathered in this phase will also be used to revise the objectives of the programme.

D. Revision and Reimplementation

On the basis of the data collected during the product evaluation, the objectives will be revised. The programme will then be implemented on one entire campus of the Institute and on two "On-The-Spot" (a programme for inservice teachers as they remain in their schools) training locations.

Inputs:

About twenty thousand rupees will be spent on phase one and two to cover the research and developmental aspects of the project. This was provided by the Research Division of the Institute of Education. In addition three staff were given release time.

The implementation was to cost no more than the regular programme so these expenses wereborne by the participating campus. These included the purchase of primary school textbooks and some materials for the construction of instructional materials.

The project was directed by a project coordinator, a staff member of the Institute of Education. An advisory board of subject specialists was appointed to review and approve the objectives and the plan for the process and product evaluation.

Performance and Impact:

The initial product evaluation measured the performance of the trainees in their practice teaching classes and selected knowledge and attitudinal questions. The differences between the control and experimental groups were not as significant as expected although there were difinite changes in attitudes and some selected teaching behaviors. The administration of the institute felt that the project had sufficient merit and promise to warrant its further implementation. Several important changes are being made, for example, requiring trainees to spend part of each day at the primary school, which should allow for the more effective achievement of the objectives.

Key Innovative Features of the Project:

A. Objectives developed on the basis of field research.

This is the first time an effort has been made to develop objectives that respond specifically to conditions in the field and at the level of the primary teachers;

B. Modules and modular scheduling

Objectives were organized into modules (courses) that began at different times and that ran for varying lengths of time throughout the semester.

The modules taught were as follows:

(a) Teaching Resource

(b) Teaching Technique

(c) Evaluation Technique

(d) Grouping Technique

(e) Construction of Instructional Material

(f) School welfare and Community Relation

(g) Extra Curricula Activity

(h) Lesson Planning

(i) Teaching Practice.

The purpose of this type of modular organization was to eliminate repetition and provide a logical and sequential set of experiences.

C. Activity orientation of the modules

It was believed that practice had to occur side by side with theory, So the trainees practiced new skills, as they learned, with their peers, with a tutorial student, and with groups of primary school children.

D. Content innovations

A new emphasis was placed on the importance of the community and the support it must give to its school. Students were oriented to generate this support by involving the community in school activities.

E. Process evaluation

The project adopted a systematic approach to evaluate the progress of the project. Process evaluation was done through regular staff meetings, informal talks with students, feedback forms completed by them, and visits by other institute staff, information gathered through this process proved very helpful to the project staff in assessing the progress and weaknesses of the project.

F. Product evaluation

The project had adopted various means for its product evaluation.

(i) Demonstration Lesson: At the end of the semester, each of the trainees from the experimental and control groups was observed while presenting demonstration lessons. The FIAC form and a form developed by the project staff were introduced by the two research assistants.

(ii) Comprehensive Test: Besides this, at the end of the semester both groups were given a comprehensive test. Approximately 50 per cent of the questions were based on the project objectives and the rest were based on control group training courses.

(iii) In the third phase of the project, class observers will visit the trainees of both groups in their schools, observe their classes and interview them about their teaching behaviors. On the basis of this evaluation, final recommendations will be made for the future of the project.

This is the first action-research project of its kind which has tried to upgrade the full range of professional aspects of primary teacher education. It is hoped that this project will prove to be a seed in the process of innovation in this field.

Source: "National Inventory of Educational Innovations", National Development Group, Ministry of Education, H.M.G. Kathmandu, Nepal (1975).

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: INDIA

EIA No: 6

No: 1

Date of issue: December 1975

Title: SCHOOL IMPROVEMENT PROGRAMMES AND COMMUNITY SUPPORT

Background

Tamil Nadu is one of the leading states where the community has set an example in strengthening and supporting government programmes of school improvement. The experiments in the state have been joint efforts made by the Education Department and non-official agencies like Teacher Associations in successfully eliciting community support for the cause of improving hundreds of schools. The school improvement movement in Tamil Nadu has been planned and implemented as a community campaign which derives its strength from the general awareness on the part of the public of the value of good education and the need to provide for basic requirements in schools. The participation of teachers, parents and the local community in building up educational institutions along sound lines has also resulted in a willingness of the people to provide a good many of the basic school requirements. This movement has indeed made the villagers in the state 'education-conscious', asking for more and better facilities in the village schools. At the same time, it has made the villager one of the valuable resources for meeting community needs.

Harnessing community efforts for education started in Tamil Nadu state in 1956 with a public movement for the supply of free midday meals to poor children. This continued as a voluntary programme till 1957 when the state government came forward to supplement the public contribution for the extension of the programme on a wider scale. Subsequently, a pilot project was initiated in 1958 at Kadambattur N.E.S. Block to make the local community take interest in the basic needs of elementary schools in the block and provide for the supply of equipment and teaching materials.

These programmes are of a voluntary nature, but the state government through the education department plays a vital role in the movement. Apart from acting as a catalyst in bringing together the schools and the local community, the officials of the state government, in particular the Director of Public Instruction, provide the leadership and the motive force to these programmes.

Objectives

The main objectives of the self-help movement are:

(i) the creation of an activity-interested, self-confident, self-reliant and self-sufficient rural society; and

(ii) the active participation of the community in providing educational activities of the schools

Special Features

The project has three phases, viz (a) detailed preparation of the needs of schools in a range and informal meetings with the local public; (b) holding of a conference, either at the range or district level, together with arrangement of an exhibition of articles donated by the public; and (c) considerable follow-up action to implement the development programmes and maintain prescribed registers and accounts. At each of these stages, the much needed leadership is provided by the Education Department in an informal way.

The most important feature is that the pivot of the entire programme is the Teachers' Association Centre, presided over by the deputy inspector of schools concerned. It is obligatory for all teachers in elementary schools to become members of a teachers' association, which requires a minimum membership of 35 teachers. The teachers' association centres hold monthly meetings during which the teachers are kept informed about the advice and decisions of the Director of Public Instruction on different matters concerning the Education Department. The experiences of other teachers' association centres, particularly in the organisation of school improvement projects are conveyed to its members by the president of centre. This helps to introduce a spirit of healthy competition among different centres in their activities relating to the various development projects.

Another important feature is that no special incentives are offered to the education department officials working in the field. Under the circumstances, if the officials are keen on the success of the schemes, the credit should go to their faith in the utility of the programmes and to their desire to see the schools developed along sound lines.

The teachers are encouraged to undertake the school improvement projects by their realisation of the need to have better equipment and tools for teaching. To the extent that they are able to effect improvement in this regard, the teachers get appreciation from the local community as well as the senior officials of the Education Department. The enthusiasm of the younger teachers is also due to the fact that they have been exposed to the spirit of these programmes while undergoing the teacher training courses.

Another incentive is the state award for selected teachers in the different districts and ranges. The contributions of a teacher in the betterment of schools under this movement are taken into consideration in the selection of teachers for awards. An indirect source for sustaining teachers' interest in these programmes has been the periodical visits to these ranges by the leaders of government and public sectors both from within and outside the state.

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According to the state government, the phenomenal enthusiasm shown by the public in regard to this movement is but a manifestation of their desire to give generously to the education of their children.

Evaluation

Although systematic evaluation of the programme is awaited, the progress can be seen in a number of directions:

(i) School Buildings: The careful planning of programmes and the public enthusiasm have resulted in all-round improvement of the schools, in terms of their basic needs, modern methods of teaching and the over-all increase in student enrolment. A few schools have been able to construct even fairly adequate buildings through donations.

(ii) Midday Meals: By and large, maximum contributions have been forthcoming for midday-meals programmes. Public support has been in the form of a supply of utensils for preparing meals or for the storage of foodgrains, supply of plates for serving food, supply of foodgrains, donations of cash, putting up the kitchen and preparing meals.

(iii) Uniforms to Schools: An effort is made to organise a free supply of clothes either during school improvement conferences or separately. This consists of free gifts of uniforms to poor children as well as provision of uniforms to children by their parents.

(iv) Furniture, Teaching Aids and Library Books: A large number of schools have been fully provided with office and classroom furniture, including wall-clocks, steel cupboards, radios and typewriters. A few high schools have also received microphones, amplifier sets, epidioscopes and duplicating machines. The cost of electrical wiring and providing tube lights in schools is commonly met by individual donors.

One of the significant additions to the traditional classroom furniture has been large number of pictures of national leaders as well as of modern thinkers, philosophers and poets. Besides this, globes, maps, models and charts have been provided to all the elementary schools. Moreover, for improving science teaching, laboratories have been well-equipped and science books have been supplied.

The success of the School Improvement Movement in Tamil Nadu is due to thorough involvement of the community. It illustrates how administration and community work as partners for giving better education to the children.

__Source__: 'Innovations in Education", National Council of Educational Research and Training, Sri Aurobindo Marg, New Delhi, India

__Contact Organization__: National Council of Educational
Research and Training
Sri Aurobindo Marg
New Delhi, India

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
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of receiver)

Country: PHILIPPINES EIA No: 7

No: 2 Date of issue: December 1975

Title: DEPARTMENT OF EDUCATION AND CULTURE (DEC)
GREEN REVOLUTION (GR) PROGRAM

Background:

Despite the Philippines being a basically agricultural country abundant in rich, natural and human resources, prices of food and consequently other commodities have continued to rise due to the wide disparity between supply and demand. To worsen conditions, people have a general aversion towards agricultural toil and other blue collar occupations coupled with a strong preference for things imported as a result of the country's long history in colonial subjugation. Already detrimental repercussions on the social-economic condition of the country have surfaced and there is a felt need for a programme that would reverse the existing situation.

Objectives:

Through the leadership and co-ordination of the school system in its interaction with the school children, parents, out-of-school youths and adults and other community members, the GR Program aims to:

1. Help attain socio-economic progress in communities through the acquisition of better know-how and development of skills and attitudes necessary for the efficient production of food, utilization of agricultural products and marketing.
2. Promote good health of the people through the adoption of selective food production and good habits.
3. Develop desirable traits, habits, attitudes and values for better personal and family living as well as citizenship training and leadership.

Implementation:

Preparatory steps undertaken before the actual operation of the DEC Program consisted of the organization of the National Planning and Programming Committee and the issuance of memorandums to the field defining the general plans of action as well as evaluation.

After the systematic organization of committees from the national down to the school level, the following approaches were utilized in the implementation of the program: 1) in-service training, 2) production and use of GR integrated curriculum materials,

3) improvement of teaching competencies needed for the GR Program through the offering of the Master of Arts in Teaching Elementary Agriculture (MATEA) in selected agricultural institutions, 4) establishment of seed centres, 5) conducting animal dispersal and fingerling production projects, 6) initiating nation-wide campaigns in fruit and forest tree growing, crop production, vegetable raising and other food production campaigns, 7) securing help of banks to finance supervised farming projects, 8) conducting out-of-school youth and adult farmer classes, 9) implementing food and nutrition programmes in the school and in the community, 10) sponsoring agro-industrial fairs from barrio up to regional levels, 11) campaigning for the organization of co-operatives, and 12) organizing of evaluation teams.

Inputs:

Inputs to the DEC GR Program consist of: facilities used by participating institutions for training, instruction and office work; funds for travel of co-ordinators and/or officials; and expertise of technical consultants, administrators and other officers.

To get the maximum co-operation of every individual in the schools and possibly all citizens in the country, the whole school system from the top official down to the lowest grade pupil were involved. Management is highly centralized with the Honorable Secretary of Education and Culture, at the helm of the programme as Honorary Chairman and his Undersecretary as Chairman. On the national level, there are four committees, namely: steering, executive, working and executive-planning for each of the regions. In the field in general, management is done by officers in the locality or barrio, municipality and province under the co-ordination of the Division Superintendent of Schools in co-operation with the government agencies carrying out the National GR Movement.

Performance and Impact:

Formal as well as informal means of evaluation have revealed the tremendous impact of the GR program on the lives of the people even within the short span of time since its inception in 1971.

As of the end of the school year (1972-73) 9,282,392 pupils/students or 80.76 per cent of the projected enrolment for the year were engaged in GR projects. Total value of the produce amounted to ₱75,666,613.26. Abundance of vegetables and other food commodities have brought down the prices of farm products.

More important than the material produce, however, are the immeasurable benefits brought in by the programme, such as the "greening" of the countryside especially the unsightly, vacant lots; the changed attitude towards manual work among students, parents and other people in the community; worthwhile work activities for the unemployed youth and adults; the enhance peace and order conditions as a result of the channeling of energies of the youth to productive enterprises; and a healthier and consequently a happier community - a result of better nutrition.

Key Innovative Features:

1. Systematic organization and nationalization of the total educational set up from the national plane down to the barrio level in the implementation of the GR Program.
2. Integration of the programme into the curriculum through the work and value oriented curriculum which has made the programme relevant and meaningful to teaching, and vice versa.
3. Integration of the GR Programme with other existing development programmes of the nation such as the nutrition programme, the tree-planting project, the co-operatives programme and others.
4. The sponsoring of agro-industrial fairs by barrio, province and region not only serves as welcome respite to the serious "world of work" of the GR but also further enhances the agro-industrial development of the communities as they participate in various competitive activities which cultimate with the fair.
5. Establishment of the seed centres among selected vocational schools has prevented the shortage of seeds which is one of the main causes of the programme's breakdown.
6. Provisions for adequate in-service training of personnel involved through seminars, workshops and the offering of a new graduate curriculum in agriculture for teachers (Master of Arts in Teaching Elementary Agriculture). This ensures a ready pool of leaders and implementors of the programme.
7. Provision for a continued evaluation from which feedback is obtained to serve as basis for further improvement of the programme.

Source: "Inventory of Educational Innovations",
Department of Education and Culture,
National Research and Development Centre
for Teacher Education, Manila, Philippines

Contact Person: Dr. Narciso Albarracin
Undersecretary of Education and Culture
and concurrently
Chairman, DEC
GreenRevolution Committee, Manila

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: NEPAL

EIA No: 8

No: 2

Date of issue: December 1975

Title: PROMOTING EQUAL ACCESS OF GIRLS AND WOMEN TO EDUCATION.

Background

Development of public education is very recent in Nepal. Growth and development of educational institutions in the country has been very fast since democracy (1950). But even today only 13.9 per cent of the population, six years and over, are literate and only 3.9 per cent of female population fall into this category (data: 1971).

In a tradition-bound society like Nepal, female education needs special attention. Parents do not realise the importance of educating their daughters. The number of girls in Nepalese schools is disheartening. It is hoped that by increasing the number of female teachers in the primary schools of Nepal it will be possible and also easy to overcome the traditional social barriers which prevent girls from entering schools.

Objectives

a. To promote equal access of girls and women to education by increasing the number of women teachers through training at the Institute of Education, and improving their qualifications through special courses; and

b. To provide incentives for women to join the teaching profession and thus strengthen the primary education component of the National Education System Plan for 1971-76 (NESP).

Implementation

This project began in 1971. It was first started at Pokhara Campus of the Institute of Education. Before starting the project, a sociologist made a preliminary survey of the area and identified the constraints in women's education in this area. A specialist in teacher education and an advisor from UNESCO were made available.

The project terminates in December 1975. During this period, 200 women are to be recruited, boarded and trained as part of the regular primary teacher training programme. Extra-curricular training is provided in health, home science and child-care in order to prepare the trainees for village leadership roles.

So far, 165 girls & women students have been trained in this project. At present there are 82 girls and women primary teacher trainees. There is a 250 per cent increase from the first batch of trainees in 1971.

Impact and Effectiveness

A mid-term evaluation of the project was made in 1973 in order to study the results of this project and its impact on the social and economic development of Gandaki Zone (Pokhara). A tripartite mission composed of UNESCO, UNDP and HMG (His Majesty's Government) has finished its evaluation report. Findings are encouraging. Possibilities of using the results as feedback and possible application of the project to the whole regular programme of teacher training are being explored.

Source: "National Inventory of Educational Innovations", National Development Group, Ministry of Education, H.M.G. Kathmandu, Nepal (1975).

Contact organization/person: a. Institute of Education, Pokhara Campus, Pokhara.

b. Institute of Education, Dhankuta Campus, Khankuta.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)
Country: PHILIPPINES
EIA No: 9
No: 3
Date of issue: December 1975

Title: INTEGRATING WORK AND VOCATIONAL SKILLS INTO A HIGH SCHOOL ACADEMIC CURRICULUM: JASMS - A LEARNER-ORIENTED DESIGN

Background:

Secondary education was deemed by the project proponents as being disoriented with social realities and inconsistent with the needs and interests of students, thus, often disenchanting to adolescent youth. The project, in search for relevance in secondary education, was then started in 1961. It represents a deviation from conventional school organization and management, inflexible curriculum structures, formalistic administration, stereotyped and uniform instructional procedures, rigid time allotments, and other traditional elements of the subject-centered setup. In other words, the project is learner-oriented which places emphasis on the felt needs and immediate interests of individual students.

With feedback from former students who had gone to colleges, reports of Commissions to survey Philippine education and consensus of beliefs on the nature of human growth and development, a tentative plan for a new type of high school was d3signed, one which would meet the needs of and offer a promise to young people with high potential for academic excellence to achieve and ever-increasing intellectual power and, at the same time, afford those with limited mental ability acceptable outlets for their own particular strengths and where all would acquire a sense of their own worth in society.

Objectives:

Institutional in scope, the project is a local adoption of an experimental high school which has continuously been improved since its inception in 1961. Its curriculum has been recently reinforced through regorms introduced by the Department of Education and Culture, such as YDT programmes, YCAP activities, sports development, etc. In general, the objectives of the project are:

1. To bridge the gap more quickly between the needs and aspirations of students and the demands of the nation's development.

2. To discover effective means of involving students and teachers in constructive response to social events and changes.

3. To discover what is feasible in response to needed educational reforms within a given population.

Specifically, the project seeks to:

1. Draw curricular centent from contemporary problems, issues, events, and changes.

2. Provide opportunities for self-initiated and voluntary work experience in and out of school time.

3. Test and carry out ideas in concrete forms.

4. Create conditions for work and study that permit freedom of choice in selecting curricular activities.

5. Evaluate outcomes in terms of the student's set goals.

Implementation:

The inclusion of work experience in the academic curriculum was originally conceived by Mrs. Patnaik, an Indian educator, who foresaw the feasibility of developing an idle, one-hectare lot near the school. A programme of studies in Science, History and Literature was evolved and integrated with Agriculture. Starting with only 21 students in 1961, the project had 200 students enrolled at the time of this national survey in four work-oriented curricular offerings, namely: Agriculture (rice production, poultry raising, fishpond culture, plant propagation), Business (typing, stenography, bookkeeping), Crafts (cooking, dressmaking, tailoring, canteen service), and Photography. These vocational courses that have been integrated with academic subjects cover four years.

The project envisions to carry on and improve the working atmosphere and interpersonal relationships through personalized instruction, co-operative projects, and mutual sharing to foster a continuing development of self-disciplined, well-socialized young people who are imbued with desirable attitudes toward work and possessed with demostrable capacity to use freedom wisely and profitably. The project also envisages to prepare filmstrips and tapes on philosophy and practices at work.

Inputs:

Facilities provided by the school consist of a one-hectare farm, typewriters, musical instruments, art room and materials, photography laboratory, hand tractor and farm implements, student-operated canteen, sports equipment, laboratory co-operatives, libraries and materials instruction centre, and faculty development programmes. Financial support amounting to ₱100,000.00 is borne out by the Philippine Women's Unicersity. The project though is self-supporting through utuition fees, earnings from various co-operative projects, and free services from consultant and parents.

The project is managed by a full-time project director (Mrs. Doreen B. Gamboa) with Miss Encarnacion San Pedro as Chairman who directly administers the high school and exercises immediate supervision and co-ordination over the activities of the farm manager, the adviser of the school's co-operatives (Producers and Consumers Coops), and members of the instructional staff.

Performance and Impact:

The respondent claims that all graduates of the JASMS for the last two years are either studying in college or gainfully employed. One student, without diploma due to fixed graduation requirements, is now a well-known dress designer. These have won competitive university scholarships. The school farm produces annually 14-22 cavans of palay, 1-2 hundred kilos of bangos and carps, 2,000 broilers, 9,000 eggs, and several hundred kilos of fruits and vegetables.

Key Innovative Features:

1. Flexible programming of activities.
2. Student involvement in planning, implementing and assessing work and study.
3. Personalized instruction and volunteer service from community.
4. Informal working relationships among administrators, instructors and students.
5. Utilization of local materials and conditions as resource materials for teaching.
6. Modification of rigid curricular requirements and instructional procedures through feedback from guidance sources.

Source: "Inventory of Educational Innovations",
Department of Education and Culture, National
Research and Development Centre for Teacher
Education, Manila, Philippines

Contact Person: Mrs. Doreen B. Gamboa, Director and
Miss Encarnacion San Pedro, Chairman
Jose Abad Santos Memorial School
E. de los Santos Avenue, Quezon City
(The school is an affiliate of FWU)

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PHILIPPINES

EIA No: 10

No: 4

Date of issue: December 1975

Title: CAPIZ MOBILE SCHOOL - A JOINT PROJECT OF CAPIZ INSTITUTE OF TECHNOLOGY AND THE PROVINCIAL GOVERNMENT OF CAPIZ

Background

The following problems motivated this project:

a) Many young people cannot afford to attend formal technical training due to financial problem.

b) Out-of-school youths' request for a nonformal training right in their own town.

c) A need to disseminate information about food and nutrition programme, family planning, health and sanitation, etc.

d) A desire by the Capiz Institute of Technology and the provincial government officials to solve unemployment problem in rural areas.

Objectives

a) To provide trade or agro-fishery skills to out-of-school youths.

b) To expand employment opportunities and income of rural folks.

c) To support food and nutrition, health and sanitation, food production and the family planning programme of the government.

The project was started in 1973-1974 and is designed for local adoption. The population target consists of the nonformal education clientele.

Implementation

The preparatory measures taken before the project became operational were: a) survey of interested out-of-school youth; b) survey of materials available in the area; c) conference with local officials concerned; d) identification of short-term shop courses to be opened; e) selection of teachers to teach the course; and f) making of course guides and scheduling classes. The project has been operating since 1973-74 and is a continuing one.

At first only 8 people were interested in learning handicraft. But as the training programme went on, the enrolment increased up to 37. This schoolyear 1974-75 five barrios are being served. More than 120 are undergoing training in barrio Casanayan, Libas, Punta Tabuc, Lantangan and Intongcan.

The methods used in carrying out the project were: a) solicitation of support and co-operation from both the provincial and municipal officials; b) use of a truck (converted into a classroom); c) selection of qualified teachers; d) procurement of handtools and other equipment for the use of the teachers and trainees; e) training during Saturdays and Sundays.

The proponents of the project plan to undertake the following: a) formulate and schedule an over-all programme for the entire province; b) further solicit funds for the project; c) provide the necessary additions to the teaching staff; d) organize co-operatives among graduated trainees of this programme.

Inputs

The facilities available for the project are: a) materials which were partly supplied by the Capiz Institute of Technology and the mobile classroom.

The project administrator is the over-all manager of the project. Assisting him are the Training Supervisor and the Project Co-ordinator. Under these two are the training instructors and local co-ordinating officials who implement the programme by way of training the out-of-school youth.

Performance and Impact

Formal and informal evaluation instruments were used in evaluating the results of the project. About 80% of the objectives were attained.

Key Features:

Among the key features of this project are :

a) The pervading atmosphere of co-operation and democratic practices in attaining the objectives of this project.

b) In terms of procedures - interviews, listening sessions, buzz sessions, conferences, and group discussions are used.

c) The conversion of a truck into a classroom which enabled the programme to reach even those faraway out-of-school youths.

Source: "Inventory of Educational Innovations",
Department of Education and Culture,
National Research and Development Centre
for Teacher Education, Manila, Philippines

Contact Person: a) Honorable Cornelio Villareal, Jr.
Provincial Governor
Capiz

b) Mr. Melquiades Pugne
Superintendent, Capiz Institute of Technology
Roxas City

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: INDIA

EIA No: 10 A

No: 2

Date of issue: December 1975

Title: ECONOMIC AND EDUCATIONAL RURAL DEVELOPMENT THROUGH VOLUNTARY EFFORT

Background

Kishore Bharati is a voluntary organization which is working for the rural development at Palia Piparia village. In this centre, attempts are being made to combine academic and vocational training. Kishore Bharati received 150 acres of land from the Government of Madhya Pradesh. Two single-storyed hall-like structures have been constructed with the help of one community.

Objectives

The main objectives of the centre are:

(i) to infuse self-confidence amongst young villagers in the viability of agro-based activities;

(ii) to strengthen their faith in co-operative endeavour as an effective means of solving community problems;

(iii) to try to stop the city-bound migration of the village youth in search of scarce menial jobs.

Special Features

The main activities taken up at the village are farming; construction of ring wells for better irrigation facilities to the village community; production of rings for wells; construction of water-sealed latrines; manufacture of chokes for tube lights; and cattle development programme. The organisation has developed confidence in running these activities.

In the second phase, efforts are being made to offer the drop-outs of the surrounding villages a vocation-based education. The main feature of the programme is that the educational activities are centred round productive activities like farming, dairying, cottage industries, workshop and marketing. The economic development projects which are being run in the region will be the most suitable training ground for young people. It is for this reason that Kishore Bharati has first concentrated on organising a few crucial projects of economic development in the area. Search for the first batch of students has already begun.

Kishore Bharati is also making efforts to improve science teaching methods in the surrounding schools. The programme lays special emphasis on teaching science through experiments. The government of Madhya Pradesh has given freedom to experiment with text-books, syllabi, learning methods, examination system and teacher training techniques in the surrounding 16 rural middle schools. The teachers have been oriented in the content and methodology of teaching the rural children. Necessary changes have been made in the content of science teaching on the basis of feedback. The students have been encouraged to take up individual science projects. Science exhibitions have been organised in the village.

Within a few years the programme has been able to make an appreciable contribution to the economic and educational uplift of the village community. It also exemplifies that voluntary organisations can play a significant role in the rural development of the country. Active community involvement is necessary for bringing rapid changes in the economic and educational fields. The government of Madhya Pradesh is thinking to extend the programme idea to all the 150 middle schools of Hoshangabad District.

The long-range goal of the organisation is to build up a group of teacher trainees from amongst the teachers involved in the programme so that a multiplier effect is generated.

Source: "Innovations in Education", National Council of Educational Research and Training, Sri Aurobindo Marg, New Delhi, India

Contact Organization: Kishore Bharati, V. Palia Piparia
Distt. Hoshangabad
Madhya Pradesh

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: INDIA

EIA No: 11

No: 3

Date of issue: December 1975

Title: MOBILE CRECHES FOR THE CHILDREN OF WORKING MOTHERS

Background

The experiment on mobile creches on worksites began in early 1969. In its fifth year it began to reach the huts of casual labour in the semi-permanent slum areas of Delhi. This extension has brought under their wing a loose cluster of Harijans, contract labourers and others who lie at the lowest rung of society.

Mobile creches have worked on 32 worksites so far and the aim is to set up a network of such centres. The lanes of the semi-permanent slum areas are dense with children roaming, playing and drifting. The needs of these children are similar to those on worksites, perhaps more urgent due to the congestion and influences of slum living. The broad outlines of the programme in the semi-permanent slums is the same as on worksites-creche, balwadi, tutorial facility for older children, creative activities, health care, nutrition, adult literacy, technical training and community work. Mobile creches started life with small donations from people who were stirred by the idea. Support came from contractors who had been persuaded to share the recurring costs of the creches on their worksites. As the work progressed, organisations like I.G.S.S.S.; Brothers to All Men and UNICEF extended their help and lastly the government sanctioned grants to meet specific types of expenditure. This source of finance is occasional and non-recurring and therefore, has to be supported by regular fund-raising ventures like the sale of greeting cards, sale of spices, manufacture and sale of squashes and pickles, jumble sale, etc.

Objectives

(i) To provide basic facilities to the nomadic labour in the capital wherever they set up their homes;

(ii) To provide basic care, medical aid, functional literacy, recreational and creative activities to the children living in slum areas;

(iii) To arrange literacy classes and vocational training for the adults;

(iv) To secure a more rational and practical approach on the part of the government departments towards the existing rules and laws that pertain to the living conditions on worksites and slum areas.

Special Features

The main wheels on which the programme moves are education, medical care, nutrition, family planning, adult literacy, vocational training and community work.

The pattern of the school is rather different from that of more formal schools. The day begins with children assisting teachers to fetch water from the local pumps shared by all the hutmet dwellers, clean the the school, help younger ones when the doctor comes or at meal times etc.,. Late comers who have household chores to complete are allowed to slip into class late and leave before the full school day is up as the home responsibilities call them. The teachers participating in a range of care activities along with teaching are closer to the general pattern of the children's lives where learning has to take place in the midst of responsibilities for household chores and care of little ones.

Creches have to face many problems. Children come dirty and full of infections. With limited facilities there is no possible means of isolating children who are suffering from infectious diseases. But the medical programme has gradually expanded its scope to face all these issues. There are now three doctors working on the programme. Immunization against polio, T.B., smallpox, D.P.T., etc., is a regular feature.

The nutrition of the community has been found to be very low and a strong emphasis is being laid on supplementing deficiencies of the children's diet. Milk and bulgar porridge are served at the schools. In addition, sweet and salted biscuits using wheat soya blend, milk powder and salad oil are baked and delivered to centres and they serve as a high protein supplement.

The necessity for close communication with the adults on the worksites was felt since the inception of the programme. But it was only in July 1971 that the centre was able to undertake work in this field. The organisers were faced with the cumulative task of finding part-time workers to teach in the evening and devise motivation programmes to interest the workers. The literacy classes were faced with constant interruptions. The temptation of overtime on rush jobs often drew away the adult learner. Migration continues to cause many breaks. But much has been learnt in handling these problems. Slowly they have been able not only to improve the quality of the teaching at the literacy centres but to suggest experiments in improving the environment and the way of life at the labour camp by building model jhuggies (huts), conducting classes on nutrition and child care and having frequent film shows.

Slum Programmes: The slum by virtue of its size magnifies the health and social problems faced by organisers on the worksites. The worksite is a cohesive entity. Leadership and control centre on the contractor and the labour groups are inter-related. The child lives in a small society of greater emotional security. The slum is made up of numerous communities from different regions of the country. Working amongst them puts new pressures on the staff.

Slum dwellers are involved in a variety of occupations. Many mothers are only partially employed. Due to part-time occupations, the urgency of having a creche is less than that on the worksites. The main emphasis of the programme thus is on the pre-school child and the older children not yet in school.

The slum child is as involved as his counterpart on the worksite in sharing family responsibilities. His advantage is that his place of abode is more permanent. He does have a better chance of a longer spell of school, but the school pattern must permit him to carry on his home responsibilities. His greater stability reduces some of the specific educational problems faced by teachers on worksites but in their place social problems provide a different kind of challenge. Slum children need a place to work and play after the school hours and during vacations. Their congested homes and harassed mothers are unable to provide either space or direction. Mobile creche centres are experimenting with the concept of summer schools in slum areas to meet this need.

It is difficult to find qualified people who are willing to work in the difficult conditions on worksites and in slums. Also there is a dearth of people who have parctical experience in field work of this nature. The chief pre-occupation of the programme therefore, has been to shape personnel to be effective in the situation that confronts them. After much experimentation it was found most effective to utilize the services of untrained higher secondary educated girls to work at the centres, giving them a regular and continuous in-service training and to use specialised staff only for purposes of giving training.

The aim of the training is to train higher secondary educated girls to take care of small units of 80-100 children of 0-12 years age group in all aspects of a day care programme. They are:

(a) Creche Training: Principles of hygiene, recognition and treatment of simple infections, infant bathing, feeding, dressing of wounds, general medical follow-up is taught by the doctors on the site accompanied by occasional workshops.

(b) Training in Education: The aim is to help teachers to use techniques that will modify rote processes to meaningful instruction, acquaint them with the stages of child development and behaviour and improve and supplement their basic knowledge. The procedure adopted has been through fortnightly workshops and follow-up on site through a biweekly visit of a trained teacher.

(c) Training in Administrative Functions: Staff are taught how to plan and organise activities on school day, conduct the supplementary nutrition programme, organise the health and hygiene programme, maintain stock registers, indents and records of the centre.

The supervisory staff of the mobile creches is drawn from the staff members who have proved to be responsible and have shown a potential for organisational work. They are the teachers in charge of one or two units. The aim of the training is carried out in two ways (a) through regular discussions on problems, and (b) through courses arranged by institutions specialising in such fields.

To carry out in-service training for specialised staff, a small band of qualified teachers is appointed to take care of three centres each. These teachers are given a thorough orientation so that the training they impart will be much more than a training in teaching methods. In order to prepare them for this role, they are given responsibility of running a single unit administratively, educationally, for medical follow-up and community contact. In addition, they are exposed to the stimulation of working with resource people on specific educational problems of the migrant labour child. Once a week these teachers meet an educational planner to work on methods, instructional material and content of the coming week's educational programmes.

Results

Although no formal evaluation has yet been done, some of the results achieved so far are:

(i) The nucleus of a community centre has been established. Access to newspapers and some reading materials has provided a new focus for the community. Very gradually minds are being opened up and the discussion evening have a more interested audience.

(ii) Carpentry classes have been started for young adults.

(iii) The results of the various methods of stimulation are slow in coming but the figures of attendance (especially adults) have been going up. A number of them can now write their names, do simple calculations about their wages and their money transactions, write their own letters and read newspapers.

(iv) A very interesting development has been the response of the women to the literacy classes. Contrary to expectation, the very traditional women folk of this community have shown keen interest in the nutrition demonstrations, the discussions on child care and in the actual learning process. A possible explanation for this success can be that the women through their children have been more involved with the day programme and are consequently better motivated.

(v) The arts and crafts programme has uncovered the richness of imagination of children. Older children who entered corporation schools have been successful and have demonstrated their right to care and attention. And parents encouraged by their success are beginning to feel that they have a stake in educating their child.

The mobile creches scheme has opened up new avenues for the children of nomadic labourers who had previously remained outside the fold of educational programme.

Source: "Innovations in Education", National Council of Educational Research and Training, Sri Aurobindo Marg, New Delhi, India

Contact Institution: Centre for Mobile Creches
13 Rajghat, New Delhi

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: PHILIPPINES

EIA No: 12

No: 5

Date of Issue: December 1975

Title: PALAWAN NATIONAL AGRICULTURAL COLLEGE (PNAC) BAYANIHAN SCHOOL PROGRAM (2-2 PLAN IN SECONDARY VOCATIONAL AGRICULTURE)

Background

Palawan, a frontier province of vast, rich agricultural resources needs men with agricultural "know-how" to exploit its agricultural potentials. Because farm families in this province are widely scattered in far-flung barrios and towns, a greater number of them could not afford to send away their children for training in an agricultural institution. Besides, the lone agricultural college in its traditional set up could not cope with the growing demands for its services. There arose the necessity for a programme that would answer the needs of such farm families.

Objectives

1. Offer a secondary school programme that provides both terminal secondary agricultural and college preparatory education.
2. "Bring the school" to where the farms are and through its "earn-and-save-while-you learn scheme" provide opportunity for poor farm families to avail of the benefits of secondary agricultural education.
3. Insure a realistic and functional secondary agricultural training by using the students' own farms as practicum laboratories.
4. Maximize educational output by utilizing local rural resources and by increasing parents' participation and commitment in sharing the school burden of secondary education.
5. Minimize congestion at the college campus by bringing classes in agriculture to the individual farms of students.

Implementation

This programme is a radical departure from where it was adopted, the secondary vocational agriculture curriculum. Whereas the regular curriculum offers the agricultural courses side by side with the academic courses within the span of 4 years, the "Bayanihan" prescribes all agricultural courses during the first 2 years, right in the farms, and the academic courses during the next 2 years in the PNAC campus.

The barrio council petitions PNAC for the opening of the school programme in a place. It guarantees support for the school in terms of provision for school site, buildings, furniture and other equipment. The PNAC upon granting the request assigns teachers and technicians and answers for their salaries.

Instructors/technicians teach and supervise students from one farm to the other allowing students to progress in their courses according to the individual student's own rate. For this purpose, learning kits as well as a checklist of agricultural skills to be acquired are provided.

If after 2 years of vocational work a student opts to discontinue the next 2 years' work in academic courses and instead go into farming, he may do so and still receive a certificate of proficiency in agriculture. Should he otherwise continue to finish the next 2 years of academic work for a secondary education, he is prepared for both full time job in agriculture and for college work.

Group process techniques are used most often in instruction. Students extend group help to any particular project in need of assistance. Aside from individual farm projects, students maintain communal farms in which case individual proceeds are deposited under individual accounts at the co-operative credit unions. Each student is required an annual savings deposit of not less than ₱500.00, so that by the time he is through with his vocational courses, he has had deposited enough to finance his school fees during the next 2 years of academic work.

Inputs

Inputs consist of ₱145,000.00 from the PNAC's extension budget and from those contributed by the barrio council as well as the barrio people. Funding from the PNAC covers salaries of personnel while those from the barrio council and the people go to school buildings, desks and chairs and other instructional materials and equipment.

Management is a partnership between the PNAC on the one hand and the barrio council and the people on the other hand. At the helm of PNAC is the president. He is assisted by the Chairman on Instruction (Technical), the Extension Supervisor and the instructors as well as technicians. On the part of the Barrio Council the barrio captain is assisted by the council members and the parents. The clientele are the barrio high school youth, the adult farmers and the out-of-school youth.

Performance and Impact

Formal methods of evaluation employed include checklist, examination of records and reports. Informal techniques include observations and interviews. Evaluation results serves as basis for the expansion and improvement of the programme.

From the initial implementation of 120 students in 2 barrios, the programme now covers 10 barrios or centres with an enrolment of 800 within the brief span of 4 years.

In terms of capital formation, the students raised a total of ₱155,832.37 in the different centres from their production enterprises for the period of 1972-75. Of this amount, ₱61,135.75 was deposited in the PNAC consumer's co-operatives. In one centre for example, students were able to acquire a ₱65,000.00 warehouse on their second year of operation.

As of now, 10 adult farmer's co-operatives and 4 Samahang Nayons were established by the staff.

There are numerous pending requests for additional centres coming from different berrios in the province - a proof of the growing popularity of the programme.

Key Innovative Features:

1. "Brings the school" to where the farm families are. This relieves congestion at the PNAC campus proper as well as enables poor families to let their children obtain a secondary education through the "earn-save-while-you-learn scheme."
2. Enables the students to use their own farms as laboratories for practicum thus ensuring realistic and functional learning in agriculture.
3. Caters not only to the youth of secondary school level but also to the adult farmers and the out-of-school youth who are within the service area of the farm families being served.
4. Progresses from one agricultural skill or course to another at the individual student's own rate.
5. Utilizes itinerant agriculture instructors and technicians who teach and supervise students in their own farms.
6. Makes extensive use of group process techniques in the true spirit of Philippine "Bayanihan" concept wherein group assistance is given to individual projects. Along the same concept students maintain communal agricultural enterprises.
7. Maximizes the participation of parents and local community officials in sharing with the school the burden of secondary education.

Source: "Inventory of Educational Innovations",
Department of Education and Culture,
National Research and Development Centre
for Teacher Education, Manila, Philippines

Contact Person: Mr. Miguel P. Palao
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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)
Country: PHILIPPINES
EIA No: 13
No: 6
Date of issue: December 1975

Title: COTABATO RURAL UPLIFT MOVEMENT (CORUM)

Background

The Southern Christian College (SCC) is a church related college in Midsayap, North Cotabato. Since its establishment in 1949, its populace have grown aware of the turtle-pace rate of development among its surrounding communities. They felt that traditional classroom teaching was no longer an effective instrument in bringing about village development among them and that a more dynamic process was needed to energize self-development.

The SCC President worked on the idea of pooling together the resources of 3 institutions: the college, the church and the community in effecting community development. Working closely with 2 other agencies, the Mindanao Christian Service Foundation (MCSF) and the Cotabato Annual Conference (CAC), together they formed a new agency named Folk School which was to serve as an extension arm of the SCC, an educational arm of the MCSF and the social service arm of the CAC. In July 1967, the infant agency was renamed Cotabato Rural Uplift Movement (CORUM) and a 1-person staff was appointed to try the integrated development programme approach in the five barrios of Midsayap.

Objectives

By providing a programme that interweaves 5 areas of concern-livelihood, health, education, self-government and culture, the CORUM intends to achieve its 3-fold objectives as follows:

1. Assist the barrio people to improve themselves by conducting a programme that will combine in one movement an all-out attack on the inter-related problems of poverty, ignorance and disease.
2. Teach the barrio people to be self-sufficient, self-reliant, and be conscious of their civic and political rights and duties.
3. Provide non-credit training to adults and out-of-school youth through practical courses in vocational agricultural training, health and sanitation, literacy, civic duties, political and cultural rights.

Implementation

The CORUM operates on the underlying philosophy: "to assist the people in meeting the interlocking problems of poverty, disease and ignorance by making them aware of the problems and how they can meet such problems by relying on their own efforts."

Implementation is done through each of the 5 areas of concern, namely:

1. Education - conducts seminars and classes on nutrition, leadership, health and sanitation; and food production.
2. Health - provides medical services as well as medicines at cost; encourages supplementary feeding; teaches home nursing and environmental sanitation, preparation, storage and preservation of food and vegetable production, and offers family planning services.
3. Culture - encourages the cultivation of appreciation for cultural values, folk songs, folk dances and folk ways.
4. Self-government - promotes strong barrio council leadership and concern for area development; organizes functional homemakers and farmers associations; rural youth development progress and programme planning committees, and forms credit unions and consumer co-operatives.
5. Livelihood - helps train the barrio residents in livestock and poultry production, intensive crop production and farm management, and fish culture.

Inputs

Facilities available to the project consist of buildings, ricemill and garage, vehicles, office equipment and materials, and others. Human inputs are composed of a full-time executive director, administrative officers, committee members and persons in charge of projects,a 15-member board of trustees, and a complement of administrative and office staff.

Funding includes an annual appropriation of ₱50,000.00 coming from the college, and about ₱2,000,000.00 donated by various funding agencies such as: the Christian Aid of London through the World Council of Churches, United Church board for World Ministers Commission on Ecumenical Missions and Relations, the Central Agency of Germany and others. Last year's trial balance showed a total of ₱2,204,233.51, expended as of March 31, 1975.

The Board of Trustees is the governing and policy-making body of the CORUM. It is composed of 2 representatives from the SSC; another 2 from the CAC; 1 from the MCSF of Midsayap and 10 from a cross-section of the Midsayap community. From among the members, the President, Secretary and Treasurer are elected.

Performances and Impact

Evaluation measures such as surveys, questionnaire, rating scales, examination of records and reports, interaction processes and casual observations have all come to the conclusion that as of date CORUM has made a significant impact on the lives of the people.

The CORUM has extended technical assistance and financing to farm families in 2 priority barrios and 11 extension barrios. It has particulrly made great strides in: organizing credit unions and co-operatives, establishing marketing programmes, making available loans for dispersal programmes for work animals and simple farm tools, providing skills training programme for unemployed youth and adults to maximize their opportunities for gainful employment.

Key Innovative Features

1. CORUM works along the philosophy of helping people to helf themselves. Serving as a catalyzer, it renders assistance in ridding poverty, disease and ignorance among less privileged people in the service area by making them aware of their problems, planning with them means and ways of solving their problems and assisting them until such time as when they can solve their problems by their ownselves.

2. Operates by making use of resources pooled from three institutions (the church, the school and the community) and its 5-pronged thrust in education, health, livelihood, self-government and culture.

3. Utilizes other programmes of the SCC in the implementation of its programme, as follows:

    a) The Student Rural Development Corps (SRDC) provides the CORUM with data and statistics upon which policies and programmes are established and improved. These are the results of the usual barrio survey undertaken by the students while on SRDC operation.

    b) Faculty Operation in Community Understanding and Service (FOCUS) - avails of the services of some 35 faculty members doing "understanding-and-service" programme for a period of 6 weeks every summer. Volunteers, after undergoing a rigid training programme render services in 3 areas, namely: i) co-operatives and credit unions, ii) literacy and iii) problems and possibilities which is a discussion of rural peoblems and their possible solutions under existing governmental approaches.

    c) The Supervised Farming Programme - engages the students in the service area in actual business-oriented farm enterprises. Students carrying supervised farming programmes should be active participants in at least one community development activity.

d) Cultural Communities Scholarship Programme - aims to train 50 teachers, half of whom are elementary and the other half secondary, as well as 40 agricultural technologists among the different cultural communities following the ratio of 60% from Moslems, 30% from other minority groups and 10% from Christians.

e) Technical Skills Training Centre - a centre for technological skills training for youth in the secondary level, out-of-school, post high school who cannot pursue higher studies, as well as for adults desirous to undergo training in integrated or specialized vocational courses.

Source: "Inventory of Educational Innovations",
Department of Education and Culture,
National Research and Development Centre
for Teacher Education, Manila, Philippines

Contact Person: Rev. Eliezer D. Mapanao
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Midsayap, North Cotabato

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: INDIA

EIA No: 14

No: 4

Date of issue: December 1975

Title: FREE PROGRESS SYSTEM - AN EXPERIMENT IN THE EDUCATION OF THE FUTURE

Background

Sri Aurobindo International Centre of Education, which is an integral part of the Sri Aurobindo Ashram, was established on 2 December 1943 and has since been growing as a significant centre of research in education.

Sri Aurobindo and the Mother have visualised a new future in which there will be a meeting of the East and the West, the ancient and the modern, the knowledge of man and the knowledge of matter and the "technology of the spirit". They affirmed that human nature can be changed and the transformation of human nature is an inevitable necessity for the future evolution of man.

These affirmations constitute the context of the research and experiment at the International Centre of Education.

It was realised that a limitation arises from the rigid and fixed inter-locking of lectures, syllabi, and examinations. A detailed analysis of the problems involved in this inter-locking was undertaken, and a series of experiments were made during which, for short and long durations, lectures were completely suspended (except in the language classes), examinations were eliminated and pursuit of syllabi was also dropped. After a period of 10 years of an intensive experimentation a new system of education was evolved. It has come to be called, "Free Progress System".

Objectives

The central endeavour of the work of experimentation at the Centre of Education has been:

(i) To nourish among the children and the youth the dream of the glorious future and an intense aspiration to develop qualities and capacities necessary for the realisation of this dream;

(ii) To ensure integral development of their personalities by accelerative processes of learning, culture and training directed to a free progress towards the perfection of;

(a) The qualities of physical health, strength, elasticity, grace and beauty;

(b) The vital, the sensory and the emotional being, and the qualities of courage, leadership, creative and formative action, the will to realise that **which is high and notable**;

(c) The mind and the qualities of impartial search after the truth, wide comprehension, ideation, imagination, intuition, subtlety, complexity, universality, quietude, silence and spontaneous mastery of knowledge;

(iii) (a) To evolve a system of education which will present an integral approach to knowledge and encourage a wide synthesis of humanities, science, technology and fine arts.

(b) To organise, in particular, studies and research in the frontiers of knowledge, to develop new forms of art, music, literature, dance, drama, sculpture, architecture and to foster international understanding and human unity.

(iv) To provide a flexible structure of educational organisation which will permit inter-disciplinary studies, diversification of courses, work-experience, learning by doing, learning by creative expression, learning to learn, and above all, learning to be;

(v) To develop among the youth the qualities and character appropriate to the task of building up a new social order of justice, liberty, equality and fraternity;

(vi) To organise occupations and activities, suitable to the learning society which will embody the right relationship between education that is life and life that is education; and

(vii) To prepare the necessary educational materials, programmes and syllabi appropriate to this experiment and research.

Special Features

In the 'free progress system' that has grown as a result of various experiments at the International Centre of Education, a special emphasis falls upon individual work; the individual work may be pursued in several different ways;

(a) by individual consultations or interviews with the teachers;

(b) by working on work-sheets;

(c) by referring to books or relevant portions of books suggested by the teachers;

(d) by quiet reflection or meditation;

(e) by carrying out experiments;

(f) by writing composition;

(g) by drawing, designing, painting; and

(h) by any other work such as carpentry, knitting, embroidery, cooking, decoration, etc.

There are indeed several situations in which group work is desirable or necessary. There are a number of projects in which there can be a division of labour; there can be educational games of teamwork and there can be joint experimentation, joint pursuit of subject or collective discussion.

But care is taken to see that the needs for individual excellence are not sacrificed for the sake of demands resulting from the considerations of the economy of the collective work.

The following points will give an outline of the actual organisation of the work:

(a) The choice of the subject for study is freely made by the students and an attempt is made to see that the choice reflects a real and serious quest of the students;

(b) At the beginning of the session, students are invited to indicate what lines of study or what particular topic they would like to explore;

(c) In order to facilitate the choice of topics, teachers present to the students a suggestive but detailed list of suitable topics. Teachers who may so wish, also give a few talks to the students to explain the main outline of the subject in order to stimulate their interest. The students are also advised to consult the material available in respective departments in order to have a detailed idea of various subjects;

(d) Each topic, thus selected, constitutes a short or a long project according to the nature of the topic;

(e) In exploring each project, students take the help of the teachers whom they might choose from among those who are competent to deal with it;

(f) Teachers, on their part, endeavour to relate the exploration of the projects to the inner needs of the students, and the methods of exploration are so organised as to permit the cultivation of intuition and higher faculties of knowledge and action;

(g) For guiding any student, teachers are expected to endeavour to widen and intensify the area of exploration so as to avoid narrow specialization or superficiality;

(h) Each student's programme of study should be flexible, supple and evolutionary;

(i) In the selection of topics of study, students are not restricted to any single faculty, whether of arts, science or technology;

(j) Tests are given to the students when necessary, and their function is to give exercises of revision, comprehension, encouragement and self-evaluation;

(k) At the end of every two or three months each student submits to the co-ordinator a report of his work in regard to each topic or subject under study;

(l) The quality of the work is considered more important than the quantity of work, although the latter is to be commensurate with high standards;

(m) If during the course of study, a student is found to be progressing slowly, he is informed that at his present rate, it would take him a long time to arrive at his goal. He is, therefore, encouraged to progress faster.

Physical education is an integral part of the total scheme of education. Students participate daily in the activities of gymnastics, aesthetics, combatives, acquatics, logic asanas, and games, eastern and western. In addition to this, there is also a facility for a training in Judo.

No distinction is made between curricular and cocurricular activities. Art, music, dance and drama are interwoven in the centre l programme of education. Hobbies are also a part of the main stream. About 17 technical and cultural courses have been organised to encourage technical skill and efficiency among the students.

Great care is taken to see that the children are able to grow and develop integrally. Education is given for enriching the existing faculties and bringing forth the new ones.

A series of experiments are being done in regard to the content of education. In the first place, there is an attempt to exclude no field of knowledge except on account of lack of material and teachers. Secondly, there is a constant effort to arrive at the unity of knowledge.

Several subjects are conceived in a new way and it has been thought fit to call them "common subjects". An attempt has been made to pay a special attention to an inter-disciplinary approach. For this purpose, there have been:

(a) Continual suggestions to the teachers and the students for the new and challenging methods of teaching and learning by which a global and spherical thought would be encouraged and fostered;

(b) Impromptu talks, discussions, seminars, projects, exhibitions and other stimulating programmes;

(c) Special help to the students in the following three areas:

  (i) Unity of knowledge;

  (ii) Relation between knowledge and life; and

  (iii) Aspiration to build a new world.

The languages taught in the centre are - English, French, German, Spanish, Italian, Sanskrit, Bengali, Oriya, Telegu, Tamil, Kannad, Hindi, Marathi and Gujarti.

Language, literature and dramatics constitute one comprehensive unit. Dramatics is undertaken as a medium of learning languages. Various forms of dramatic arts are being experimented upon and some beautiful forms of symbolic presentation with a deep stress on music and dance have emerged. There are every year about 25 dramatic presentations with one grand exposition on the annual day.

Another important project is to prepare anthologies of poems, essays, stories and plays for various levels of studies in different languages with a view to presenting in a novel and interesting way themes of truth, beauty and goodness.

A great value has been assigned to the role of story in education. An attempt is being made to prepare a few anthologies of short stories from all over the world. The criteria of selection are:

(a) that the story should be of deep human interest,

(b) that it should inspire deeper qualities of courage, heroism, sincerity, truth and self-sacrifice for the highest ideals, and

(c) that it would liberate the students from the ignorance and slavery to the past and inspire them to create a new future of world harmony.

The International Centre of Education, has in a sense no walls. It is located in the centre of a social milieu which is itself educational in character. There are workshops, manufacturing firms, bakeries, departments of tailoring, shoe-making, leather work, perfumery, embroidery, cottage industries, exhibition halls, theatres from which the students learn from work-experience. It is a natural setting for the vocationalisation of education. Students learn vocations by nourishment of hobbies and interest in manual work.

The teachers at this centre of education receive no salary, but they are all maintained on a domestic scale by the centre of education.

Instruction plays a minor role and the teachers are expected to be a living example of a higher life. Again the teachers are not to exercise any outer authority in the educational process. The only effective method is that of influence. Influence of inner and psychological contacts and the nearness of the soul of the teacher to the soul of the student.

Being a centre of fundamental and comprehensive research, it has organised facilities relevant to all the stages of education, from the nursery and pre-primary to the higher university and advanced courses. It has at present five faculties: humanities, science, language, engineering, technology, physical education.

Two new faculties (agriculture and medicine) are in the process of formation.

Methods - Some Lessons

During the ten years of experimentation some conclusions have emerged with regard to the place of lectures, syllabi and examination in the system of education.

A. Lectures:

(i) A lecture has an indispensable place in any ideal system of education;

(ii) An informal talk has an important place;

(iii) Lectures have also a great utility in:

- (a) Introducing a subject;
- (b) Stimulating an interest for a subject;
- (c) Presenting a panoramic view of a subject;
- (d) Explaining general difficulties or hurdles which are commonly met by a large number of students in the studies;
- (c) Creating a collective atmosphere in regard to certain pervasive ideas; and
- (f) Initiating a rapid and massive programme of training.

(iv) Reporting on research

B. Syllabi:

(i) A syllabus, as an overall view of an idea or a subject, has a necessary place in any ideal system of education;

(ii) A syllabus, as an instrument of defining certain - goals to be achieved, has also an important place;

(iii) A syllabus has a great utility in presenting to the students the various elements involved in what they are going to learn, in stimulating their interest in theme elements and creating in them a prospective attitude towards their studies;

(iv) Finally, a syllabus as an instrument of an analysis of a graded system of learning, has also its value and usefulness.

C. Examinations:

(i) Tests, as a means of judging achievement, are necessary and often indispensable;

(ii) Tests are also useful for stimulation, for providing opportunities for the students to think clearly and to formulate ideas adequately, for achieving precision and exactness, for arriving at a global view of the subjects of studies, for self-evaluation and for gaining self-confidence.

(iii) Tests can also be a matter of fun and play.

Source: "Innovations in Education", National Council of Educational Research and Training, Sri Aurobindo Marg, New Delhi, India

Contact Organisation: Sri Aurobindo International Centre of Education
Pondicherry

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: INDIA

EIA No: 15

No: 5

Date of issue: December 1975

Title: A MULTI-MEDIA PACKAGE FOR THE IN-SERVICE TRAINING OF PRIMARY SCHOOL TEACHERS

Background

The Centre for Educational Technology is an institute under NCERT. Its main function is to provide instructional materials and prepare resource personnel at various levels for imparting in-service training to a large number of primary school teachers teaching science in thousands of schools situated in rural and backward areas. The centre is engaged in the task of exploring the possibilities of using various media for educational purposes. The project of multi-media package is an innovative experiment in this direction. The project has emerged from the pressing problem of reorienting 1.7 million primary school teachers teaching in grades I to V with the content and methodology of science education. The project is an experiment in the use of satellite television for instructional purposes. It is envisaged that by 1976, using of TV and multi-media packages, 96,000 primary school teachers could be given training in science in an effective and economic way.

Objectives

The main objectives of the multi-media package are:

(i) to acquaint the teachers with the pedagogy associated with the science education programme;

(ii) to motivate the teachers to learn more science and adopt the pedagogy;

(iii) to provide such information as is generally not available in the textbooks, but is useful for undertaking experiments/activities.

Special Features

One of the important features of this programme is that the training materials are being provided through a multi-media package. This includes (a) television programmes, (b) radio programmes, (c) activity guides, (d) enrichment materials and tutorials.

(a) The television programmes are of 22-1/2 minutes and aim at upgrading the teacher's knowledge and understanding of the new science course. One of the important aspects of this programme is that it is based on the specific content of science syllabus. The telecast is preceded by an introductory talk by the teacher monitor. It is followed by a general discussion on the content of the programme;

(b) Radio programmes are of two types:

- (i) Enrichment programme. It is based on specific topic which is either the subject of the day's telecast or the day's activities and aims at building up a general interest programme relating that subject to every day life in India.
- (ii) Motivational programme. It consists of pre-recorded comments and discussion on the day's work or interview with teachers who have tried out successfully certain innovations.

(c) Activities - The activities form the most essential input of the multi-media course. These are to be carried out by the participant teachers during the course. The activities serve twofold purposes:

- (i) improving the teacher's knowledge of the syllabus content;
- (ii) providing examples of simple experiments which could be conducted in the classroom by the teachers.

The activities are included in an activity guide and are in the form of self instructional materials. They have been tried out in actual classroom situations and at least six of these could be carried out by the everyday participant teachers. The guide can also help them in taking up further activities after the course. There is also scope for carrying out extension activities with children.

(d) Enrichment materials. There are two types of enrichment materials:

- (i) Radio programmes;
- (ii) Additional reading materials.

The reading materials will provide information which will not ordinarily be found in textbooks and will provide the necessary background to enable teachers to teach science adequately. The participant teachers will be given these materials and the activities guide. It is also proposed to give the participant teachers a set of three NCERT textbooks for grades 3 to 5, teacher guides and NCERT science kit.

Another important feature of the programme is its human component. There is a teacher monitor in the programme who provides inter-personal communication and face to face contact with the viewers. The main function of the teacher monitor is to answer questions to T.V. or radio programmes, lead discussions, conduct tutorials, distribute materials, set up and supervise activities.

The other feature of the programme is to equip the teacher monitor with sufficient guidance materials. He is given all the materials that a participant teacher gets plus a number of materials such as:

A teacher monitor's handbook which includes:

(i) an introduction to the satellite programme and an outline of the teacher monitor's role in the multi-media training programme;

(ii) a guide to each day's training containing suggestions for introducing and discussing both the TV and radio programmes, fail-safe materials in case the TV or radio programme could not be seen or heard, suggestions for preparing and conducting the activities session, guidelines for dealing with administrative and organization problems, his responsibilities in conducting the course and his role in evaluation and feedback programmes.

(iii) programmed text on the operation of the television set.

For successful implementation of the programme provisions for imparting training at various levels have been made. Thus there are courses for senior resource personnel, resource personnel, training camps for teacher monitors and in-service course for primary school teachers.

Training Course for Senior Resource Personnel

The main objective of the course for senior research personnel is to plan details about the organizational and academic aspects of the training programmes at the state level and to acquaint the concerned personnel in each state with the details of the multi-media package.

Training Course for Resource Personnel

At the training course for resource personnel ten resource persons in each of the six states are being trained who in tern are to organize training courses for the other teacher monitors.

Training Camps for Teacher Monitors

The trained resource personnel, in their turn, will organize camps through which 400 teacher monitors will be trained for each state.

In-service Training Course for Primary School Teachers

It is the teacher monitor who is entrusted with the responsibility of conducting the multi-media training course in a TV village for ten teachers from TV and non-TV villages. These courses will cover 4000 primary school teachers in each state. Besides production of materials and training courses for various levels of workers, there are two important facets of the project, these are, feedback and evaluation. In the last phase of the project, information will be collected through teacher monitors' observation and opinions of the teacher participants on the suitability of the materials. On the basis of findings, necessary feedback materials will be prepared. At the end, there will be a comprehensive evaluation of the in-service training programme with a view to studying the change in knowledge, attitude and classroom behaviour of the teachers and the impact of the inputs (materials, preparatory training, administration and logistics) of the training programme.

Evaluation

The project is at experimental stage. Some materials are under preparation and the training programme and systematic evaluation have been taken up. The results are awaited.

It has been estimated that the total expenditure of the programme for training of 96,000 teachers by 75-76 will be much less than what summer institutes would cost for the same. The success of the project would bring a solution to the problem of re-training millions of teachers working in remote and rural areas.

Source: "Innovations in Education", National Council of Educational Research & Training, Sri Auribindo Marg, New Delhi, India

Contact Institute: Centre for Educational Technology
NCERT, Sri Aurobindo Marg
New Delhi-110016

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: JAPAN

EIA No: 16

No: 1

Date of issue: December 1975

Title: KYOTO MUNICIPAL SCIENCE CENTRE FOR YOUTH

Background

Enhancement of science education at school has been a priority area and the Government has implemented various measures for it, such as the promulgation of the Law for the Promotion of Science Education (1953), provisions of national subvention for betterment of science laboratories and kits at schools, etc. Local governments also have made corresponding efforts for promotion of Science education in their areas. In Kyoto City, the municipal board of education has organized mobile science classes for elementary and lower secondary schools since 1953. Then not only science teachers but also PTA members asked the municipal board to establish a permanent centre for science education, urging that:

a) For more effective teaching of Science, sophisticated instruments, which are difficult to provide for each school due to financial problems, would be needed;

b) For upgrading the level of science education, in-service training for teachers is a key factor whereas no provision of such opportunity was found in the city;

c) It is also important at the same time to promote research activities on science education for enhancement of science education in general.

The municipal board of education decided to establish a new centre for science education in 1965 and the Kyoto Municipal Science Centre for Youth was inaugurated in 1969.

Objectives

The centre aims at:

a) Providing intensive courses of science education for all pupils from the fifth to the eighth grades in public schools in the city;

b) To provide in-service training courses for teachers in charge of science education at public schools in the city;

c) To conduct developmental research projects related to science education;

d) To organize courses on Science for further education for the public; and

e) To make available opportunities to observe various scientific phenomena for the public.

Programmes

The Centre is equipped with laboratories, exhibition rooms, a planetarium, workshops and other facilities.

The programmes now the Centre is conducting are:

a) Study programme for pupils - All pupils from the fifth grade to the eighth can participate in the programme once a year, which aims at helping them to grasp the spirit of the scientist at work and promoting the improvement of the science education in schools.

b) In-service training for teachers - There are two ways of in-service training for teachers. One is their observation of the teaching-learning process of pupils in the Centre's laboratory. Another is their direct participation in the in-service courses organized by the Centre from time to time.

c) Further education courses/open lecture meetings for the public - The Centre organizes for the public various courses and meetings on scientific topics from time to time, mainly during the school vacation periods or in the evenings.

d) Research projects - Staff members of the Centre who have been all recruited from schools in the city are encouraged to conduct various developmental projects and particular emphasis is put on the development of teaching aids and materials to be used in classroom.

e) Exhibition rooms and planetarium are open to the public except on Thursday.

Source: "Inventories of Innovation Education Projects in Japan", National Institute of Educational Research, Tokyo, Japan (Preliminary Listing)

Contact Person: Kyoto Municipal Science Centre for Youth
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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PHILIPPINES

EIA No: 17

No: 7

Date of issue: December 1975

Title: UTILIZATION OF THE ENVIRONMENT IN DEVELOPING VIABLE LIFE SCIENCE CURRICULA

Background

The problems or situations motivating this project were: a) paucity of materials for classroom use; b) limited experience of many teachers with respect to inquiry and discovery approaches; c) too few laboratory work in classrooms; d) subjects taught are divorced from concrete life experiences of the child; e) need for ecological awareness in the use and care of the environment.

The particular of the Science Curriculum Improvement Study conceptual framework on Life Science dates back to 1970. The farm, as an environmental laboratory, and the development of other projects started in 1961. It was found out that verbal emphasis in most science curricula and the paper pencil means of evaluation did not create an atmosphere that encourage first-hand experiences with the natural environment. Furthermore, it is difficult to keep alive specimens in classrooms, especially when teachers are not trained for such an activity.

Objectives

The major purposes of the project were:

1. To effect a greater involvement among children, as well as the teachers in the development of scientific concepts derived from realistic situations.
2. It is the intent of this project to foster an awareness and understanding of the environment and to use it well and wisely.

The target population consisted of the school children and teachers of Jose Abad Santos Memorial School.

Implementation

The preparatory measures taken before making the project operational were: a) making the children aware of their natural environment; b) consultations with Dr. Chester Lawson of the Science Curriculum Improvement Study; c) securing experimental materials from New Biology studies abroad; d) getting the teachers' interest towards the project; e) live-in workshops at U.P. Los Banos; f) enlisting volunteer help from resource persons; g) conference on scientific activities; h) adoption of the SCIS concepts with modifications to suit particular conditions.

The project has been in operation for the past five years. This started as a small-scale project. The Science Programme of both the elementary and high school rely heavily on the natural environment. Thus, what at first was a mere exploration became an urge to do something about what was explored. The hectare of land owned by the school which was covered mainly with "talahib" was turned into an integrated farm which produced fish, poultry, eggs, rice, vegetables and fruits. This was done by the teachers and their students. Now, the JASMS Farm gives laboratory facilities to make science curriculum in the elementary and secondary more viable.

The general plan of action used in the implementation of the project was to afford greater autonomy to teachers in the classroom in terms of flexible work schedules, systematic planning, and interesting activities in an out of the classroom. The teachers were given on-the-job training in the use of the "situational approach". The classrooms became workrooms with materials conveniently and strategically located. The process of inquiry and discovery was encouraged among the students. Among the specific strategies and techniques used were free play, film and slides viewing, handling of specimens, purposeful exploration, recording of observations and formulating sound conclusions.

The activities that are envisaged or planned for implementation are: a) independent student work on food production; b) use of high school students to help in the preparation of elementary school projects; c) compile a list of concrete activities designed to develop science concepts; d) extension work.

Inputs

The facilities available to the project were: a) one hectare of land in Quezon City; b) 280 sq. m. ground water pond; c) fish stock (carp and bangus); d) Central housing for 400 broilers, and incubator; e) housing for 80 lying hens; f) garden house with laboratory; g) hand tractor, and a water pump; h) library and sample materials for science teaching; i) projector, slides, typewriters, calculator, and work sheets; j) pigeons, rabbits, acquaria and herbaria.

The senior staff members of the project consisted of the school director, science committee chairman, two farm managers, and one finance officer.

Expenses incurred were: a) ₱2,000 for salaries of teachers; and b) ₱8,000 for facilities. Other expenses came from: a) student co-operative, b) producers co-operatives, c) contribution from parents.

The director is incharge of the overall administration of the project. Under him are the consultants, a finance officer, the farm manager, and the science committee who assist him in the implementation of the project.

Key Innovative Features

Some of the key features worthwhile adapting are:

1. Co-operative school planning for the utilization of the environment as a learning laboratory.
2. Flexible scheduling.
3. Greater autonomy for teachers in terms of planning and decision-making.
4. Provision of concrete learning experiences.
5. Teacher-made instructional units in Science.
6. Evaluation was systematized and based upon actual performance.
7. Integration of learning experiences in the school and out-of-school.

Source: "Inventory of Educational Innovations", Department of Education and Culture, National Research and Development Centre for Teacher Education, Manila, Philippines

Contract Person: Doreen B. Gamboa
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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: INDIA EIA No: 18

No: 6 Date of issue: December 1975

Title: EDUCATIONAL TOYS

Background

The government of India has started several programmes of innovations for qualitative and structural changes in education and for integrating mass media in educational system. As one of its agents in these programmes the Centre for Educational Technology has been set up at New Delhi as an institute of the NCERT. Since its establishment in the summer of 1973, the centre has undertaken several programmes of training and action research like feasibility studies, case studies for developing more effective systems and for developing materials and other inputs which the system would need. Educational toys is one of the important projects on which the centre is working.

The period of early childhood is extremely crucial, particularly from the point of view of the ultimate educational development of the child. For children coming from disadvantaged homes it is all the more important. It is during this period that the foundations for learning how to learn are laid. At this age children learn easily with the help of toys and play materials. Manipulation of toys and handling equipment has the added advantage of helping children to acquire knowledge about the Physical properties as well as the functional aspects of things. To meet these developmental needs of children, the project has been worked out.

The objective of this project is to make a co-ordinated framework provided by the Developmental Norm Project (DNP) 2-$\frac{1}{2}$ -- 5 yr. study (completed) by the DNP 5-$\frac{1}{2}$ -- 11 yr. study now underway in the Department of Educational Psychology and Foundations of Education, NCERT.

Objectives

The main objectives of the project are:

i) To develop toys or adapt toys available in market or folk toys for educational enrichment and incidental learning;

ii) To carry out a survey of what is available by way of educational toys both in urban areas as well as in villages;

iii) To classify the available material into various categories for development of different educational concepts;

iv) To consider adaptation of foreign toys which the centre might obtain from different countries;

v) To prepare [illegible]sumer's guide/short instructional notes on the best use of materials, for the guidance of teachers, parents and others who will be guiding children in the use of the materials;

vi) To try out toys for their suitability and educational value.

Special Features

The Centre has prepared some educational toys related to arithmetic, general science, language learning, and development of creativity. Educational toys related to arithmetic are based on the primary school syllabus.

A kit on educational toys has been prepared. A set of coloured slides and a coloured filmstrip named "Education Through Toys" based on the kit has also been produced.

The kit along with the coloured filmstrip with running commentary was sent to Paris for a Unesco conference in the month of October 1974. It got encouraging reactions.

Some of the educational toys were tried out at village Chattera, New Delhi and the Centre got promising results.

The centre sent an officer to Tilonia Feasibility Centre, Ajmer, Rajasthan to train the primary school teachers in preparation of educational toys with the help of locally available materials in the month of March, 1975. They are using educational toys in their classes. The results are awaited.

The centre would begin to prepare prototype educational toys related to language development. One of the important features about these toys is that these are sequential toys which would help development of concepts as worked out by a committee of experts. The concept of growth can be very well understood through such a toy, moreover, the symbols of numbers are learnt without any effort in such matching games. Numbers become fun with toys. The kit is kept in a colourful bag which itself is a source of learning experiences for children. The bag takes very little space and of its parts can serve as a plannel board. Even if there is not enough space, then a simple mat can serve for display.

The programme of educational toys is an example of the simple use of technology which a teacher or a parent could make from local low-cost materials.

The innovation in this programme lies in taking out folk art forms and modifying them to suit children.

Evaluation

Work in this area is just beginning. The toys developed are being tested and are being used as part of a feasibility study. A survey will be undertaken soon. Folk toys will be identified for educational purposes.

Source: "Innovations in Education", National Council of Educational Research and Training, Sri Auribindo Marg, New Delhi, India.

Contact Organization: Centre for Educational Technology
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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)	Country: INDIA	EIA No: 19
	No: 7	Date of issue: December 1975

Title: VIKRAM SARABHAI COMMUNITY SCIENCE CENTRE

Background

The Nehru Foundation for Development was opened by Vikram Sarabhai to commemorate the memory of late Prime Minister Pt. Jawahar Lal Nehru in 1966. The main purpose for starting the institute was to promote the cause of social and educational development through intensive use of Science and Technology. With the widening of its scope and functions, soon the need for a centre exclusively devoted to experimentation of new ideas in science and mathematics education was felt. To meet this need, the community Science Centre was created under the auspices of the Nehru Foundation for Development. The main purpose of creating this centre was to provide facilities to the scientists, teachers and pupils to try out new ideas in science learning through enquiry method. It serves as a community centre, a place where people come with their children and learn something about science, a place where interested teachers and scientists try out new ideas in teaching and learning, a place where students come and do special experiments or read in the library or discuss science with the staff members. The centre organizes exhibitions, science film shows and popular lectures. It has also a library, laboratories, hobby corners, workshops and T.V. facility for the community. The centre staff is available for consultation on various aspects of science education. The basic project of the centre is the 'Core Programme'.

Objectives

The main objectives of the Core Programme are:

i) promote scientific thinking in the science teachers and students;

ii) inculcate skills of observation, hypothesis, experimentation, conclusions and prediction.

Special Features

One of the important features of the Core Programme is that it is an adventure in discovery, developing and using inquiry skills. The key words of the programme are 'question', 'explore' and 'discover' and attempts to offer a new approach to learning science by knowing how a scientist works rather than merely knowing what the scientist knows.

The Core Programme is not a course. The programme runs purely on the enthusiasm, interest and involvement of the participant. The participants are not provided with any pre-planned programme. They have to develop the ability to use the scientific method of problem solving and develop scientific skills and understanding. Central to this programme are current ideas of intellectual development especially through extensive laboratory experiences enabling the participants to relate scientific concepts to the real world in a meaningful way. By the experimental approach to science learning, the centre makes children experience the joy and excitement of exploration and discovery; they answer their own questions, develop power of reasoning and judgement and learn to be methodical.

Components of the Core Programme

Participants form one of the components of the programme. One important thing about this is that it need not be restricted to only certain levels. The participants generally consist of a students group or teacher-student group. As far as possible the homogeneity of the group is maintained.

The second component is the catalyst. Usually, a scientist or an experienced science teacher takes up this role. He does not assume the role of a 'known-all' or a 'dominant teacher'. His role is a vital one to run this programme. He takes on the role of discussion leader at the start of the programme, stimulates the innate enthusiasm of the participant and helps in the assignment of the participants. But the catalyst never directly answers any questions. He has to use all his skills to raise subtle questions at the right moment and lead the questions to interesting lines of enquiry by the participants.

The teaching of concepts is another very vital function of the catalyst. Concepts cannot be independently developed by the student through enquiry only. At some points in the progress of the investigations there is need to clarify the concepts. It is at this point that the catalyst has to be alert to spot the 'right moment' to give an idea of the concept and the techniques of using certain instruments and methods of analysis. It is also necessary for the catalyst to refrain from praising, approving or disapproving the performances of the participants. He has to see that the participants feel these responses only through the success and achievements in their investigations.

Subject specialists: The third component is the subject specialist. The main emphasis of the programme is on open enquiry. The help of subject specialists in Biology, Chemistry and Physics and Mathematics are often needed by the students in the process of problem solving. In the absence of this facility the students seek the voluntary help of other institutions for subject specialists. Sometimes the consultant himself acts as a catalyst.

Exhibit or Problem Table: The bases of the core programme being observation and questioning, exhibits are pre-eminently suited as the starting point in this programme. Fairly large tables are laid with exhibits representing different branches of science. Two approaches are followed while arranging the exhibits:

a) Random samples

b) Samples with definite reference to topics.

The exhibits serve the purpose of rousing the curiousity of children. They pour in a number of questions. And the programme relies heavily on this component of questioning. Many of the questions are such that these lead to practical experiments e.g. why is there a hole in a tea pot lid? If rain comes from the sea, why is it not salty? These questions are of real interests as these form the starting point for experimentation by children. The catalyst's duty is to spot such question and develop them in to a sensible investigation.

The Laboratory

The laboratory experiment forms the base in this programme. The emphasis is more on improvising simple gadgetry to bring out concepts through experimentation.

Documentation and Presentation - Documentation and presentation are two other important aspects of the core programme. Once an investigation is completed and the results documented and inference drawn, it is necessary to present the data to a group to elicit responses. By this process, the participants get the confidence of presenting and subjecting their results to the scrutiny and criticism of other groups and thereby learn the essential notion that many view points on a problem are possible. Also, the technique of presenting one's thoughts in a lucid way to be comprehensible to everyone is developed and thereby the spirit of working in a group is inculcated.

The Workshops

As an off-shoot of the laboratory and audio-visual experiences sometimes the need arises for designing simple laboratory equipment and audio-visual aids. The participants often design and develop the necessary aids when they feel the need for such aids. During the last four years the Centre has made exploratory trials on various areas of science subjects covering large numbers of students, teachers and teacher-student groups.

Evaluation

After a protacted trial spreading over four years with various groups of participants, it was seen that one way of facilitating the adoption ofthis method in the schools would be to consider the science topics in schools and draw up formats using the inquiry method keeping in view the time schedules of science periods. This would enable science teachers to have certain guide lines to this approach in science learning. Towards this end, three volumes comprising inquiry topics in Biology, Chemistry, Physics and Audio-visual Education have been brought out by the Centre as a follow-up of this compilation.

The inquiry method would fill in one of the gaps in the effective learning of science in schools.

__Source__: "__Innovations in Education__", National Council of Educational Research and Training, Sri Auribindo Marg, New Delhi, India.

__Contact Organization__: Vikram Sarabhai Community Science Centre
Nehru Foundation for Development
Navrangpura, Ahmedabad - 380009.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)
Country: JAPAN
EIA No: 20
No: 2
Date of issue: December 1975

Title: NHK GAKUEN CORRESPONDENCE UPPER SECONDARY SCHOOL

Background

A system of correspondence education at the level of upper secondary school was inaugurated in Japan in March 1948. Along with the increase in the number of students enrolled it became possible in 1956 for certificates of graduation from upper secondary school to be obtained even by those who completed only the correspondence course.

It was in August 1951 that NHK (Nippon Hoso Kyokai - Japan Broadcasting Corporation) started radio programmes for correspondence upper secondary education for the first time at its broadcasting station in Sendai catering to students of the correspondence upper secondary school in Miyagi Prefecture. In 1958 NHK expanded the programmes so as to include three subjects, English, Japanese and Social Studies covering the whole country by radio broadcast. Soon thereafter NHK started broadcasting through both radio and television most of the academic subjects for the ordinary course of upper secondary education.

In the 1960s, there was a rapid increase in the number of students enrolled in upper secondary schools. This was due to; firstly, the "population - bulge" of post-War years reaching the upper secondary age-group; and secondly, increased participation rates in education at secondary level.

The Ministry of Education increased its budgetary provisions for the expansion of full-time upper secondary schools, both public and private. Besides, efforts were made for the expansion of also part-time and correspondence upper secondary schools. In October 1961, the School Education Law was partly revised, thereby promoting the connection of upper secondary education and technical education as well as making it possible to provide correspondence upper secondary education on a nation-wide scale.

On the basis of this revision of the law, the regulations on the correspondence course of the upper secondary education were completely revised in September 1962, and it became possible for correspondence courses of education to utilize broadcasting methods for instruction in addition to the traditional methods.

Furthermore, the Revised Course of Study for Upper Secondary School made effective in April 1963 authorized the correspondence course of the upper secondary level combined with radio and television broadcasting to be offered by reducing the time required for schooling.

Under these circumstances, NHK established in 1963 a four-year correspondence upper secondary school with a view to expanding opportunities for upper secondary education and also making experiments in broadcasting programmes for correspondence upper secondary education. At the same time, NHK began to broadcast, through both radio and television, educational programmes for all the subjects prescribed in the Course of Study except three.

Objectives

(1) To expand opportunities for upper secondary education and to provide general upper secondary education by means of correspondence and broadcasting to young people who are not able to attend school regularly.

(2) To try out experiments of various kinds in order to improve programmes for school broadcast by NHK, particularly programmes for the correspondence course for education.

Scope

Any person who has completed the lower secondary school can enroll as a student of the school. The total number of students enrolled at the school as of April 1975 is about 9,800 while the total number of graduates so far is 16,580 as of March 1975.

Implementation

In order to meet the legal provisions for school education, NHK established at the beginning NHK Institute for Education and under this institute NHK Correspondence Upper Secondary School was inaugurated. A net-work of 75 cooperative schools covering the whole country was also established.

The teaching-learning procedures of the school are as follows:

(1) Procedures for admissions:

Those who want to be enrolled should submit an application form together with the report from their lower secondary schools. Once admitted, they have to pay school fees including some charges for correspondence materials and their mailing. No entrance examinations is given, and all the other procedures are the same as those applied to the upper secondary school in general.

(2) Teaching-Learning Process

a) Selection of Subjects

At the beginning of the school year, the school announces a list of teaching subjects based on the Course of Study prepared by the Ministry of Education, and students are informed of the subjects to study in the year and the number of credits required. In comparison with ordinary upper secondary schools, this school offers lesser number of elective subjects. (There is only one elective subject for students in each of the third and fourth grades.)

b) Teaching Materials

Necessary textbooks (approved by the Ministry of Education), texts for broadcasting programmes (workbooks for the subjects in which broadcasting programmes are not available), paper pads for reporting and study notebooks are sent to students at the beginning of the school year. They receive also a bi-monthly bulletin called 'NHK Gakuen'. A booklet for the guidance of learning is also distributed to them at the beginning of the year, and they get acquainted with the procedures and methods of learning in this school.

c) Process of Learning Activities

i) Students must listen to/watch the broadcasting Programme, and this is the core of their learning activities. The annual schedule of broadcasting programmes is distributed at the beginning of the year and students are required to study by themselves utilizing the textbooks and texts for broadcasting programmes in advance. After listening to/watching each programme, they have to fill in a listening watching slip (consisting of space for taking notes and self-evaluation blanks) and send it in together with study reports when the latter is submitted.

During the school year 1975, 26 television programmes, each for 30 minutes as one unit, are broadcast between 9.00 p.m. and 11.00 p.m. Monday through Saturday. Also 33 radio programmes, each for 20 minutes as one unit, are broadcast between 8.00 p.m. and 10.00 p.m. Six television programmes are rebroadcast on Sunday, while a total of 31 radio programmes are rebroadcast between 10.20 p.m. and 11.00 p.m. Monday through Saturday (one programme for 20 minutes between 9.00 p.m. and 10.00 p.m.), for 20 minutes from 8.35 a.m. Tuesday through Saturday, and between 6.00 p.m. and 11.00 p.m. on Sunday.

ii) Students are required to submit study reports. The dates of their submission as well as their contents are fixed subject-wise, grade-wise and monthly.

Students have to submit study reports eight to ten times between May and February next year concerning the main subjects, two or three times a year on health and physical exercise. In all, first graders are required during the year to submit 49 reports, second graders 54 reports, third graders 77 reports and fourth graders 38 reports in addition to 8 reports on elective subjects.

The reporting paper consists of the part with supplementary materials (supplementary explanation on the textbooks, important points to be studied, instruction on pre- and post- broadcasting study, etc.) and the part of questions (with open space for answering). The part of questions is to be submitted after filling in answers, together with the listening/watching slip mentioned above, by the designated date.

Students' answers are corrected and evaluated and then sent back to students with necessary instructions for their learning.

iii) Schooling is also a requirement. The number of hours for schooling is fixed grade-wise and subject-wise. As a rule, first graders are required to spend 47 hours for schooling during the year, second graders 54 hours, third graders 42 hours (excluding the time for elective subjects), and fourth graders 35 hours (excluding the time for elective subjects). Since they listen to/watch broadcasting programmes however, schooling only for 29, 33, 25 and 24 hours are required respectively for first graders, second graders, third graders and fourth graders, according to the special regulations authorized by the Ministry of Education.

The schooling courses are given not only at the school building in Kunitachi, Tokyo but also in 67 upper secondary schools (Co-operative Schools) throughout Japan. Students have to designate the school for the schooling course and attend the course held at the school at a given date. Students can normally fulfill the minimum requirement of schooling by attendance at least once a month.

For those who are unable to attend the schooling course regularly even once a month due to their housing/working conditions, the school provides a residential course, which is organized ten times a year at the school buildings in Kunitachi where boarding facilities are available and two times a year in each of the eight regions of the country. One course usually lasts for four or five days and local residential courses are held mainly at the national/prefectural youth houses.

iv) The students are required to take tests several times a year. The test period is provided during the regular schooling or residential schooling courses. Those who miss out the test are given another opportunity for extra-test twice a year, November and March. For those who failed the test, a re-test is given in March.

v) Every year in March, an evaluation is made on a five point scale integrating all the results of the study reports, answers to the questions, schooling and tests. Credits are given on the basis of this evaluation. A total of 87 credits is the minimum requirement for graduation.

The ratio of the number of graduates to the number of new entrants has been increasing. In 1967, the first graduation from the school was only 17.5%, but in 1975, 35.6% of those who entered the school in 1971 completed the whole course successfully.

vi) Students enjoy several privileges as students of upper secondary school: special reduction rates are applied to them for mailing their study reports and for their transportation fares for schooling; income-tax exemption for working students is applicable to them; and two sources of scholarship are available.

System for Administration

This is a private school defined by the School Education Law and administered by a School Corporation, NHK Institute of Education. The Secretariat of the institute is divided into three departments, Accounting, General Affairs and School Affairs, under the control of the Director of the Governing Board. The Department of School Affairs is in charge of the vice-principal of the school.

The school is headed by the vice-principal. The post of the principal is honorary. There are three departments of teaching affairs, students guidance and instructional guidance. Also the teaching staff share the responsibilities for administration concerning all the matters concerned, subject-wise, grade-wise and region-wise.

Performance, problems and prospects

After the twelve years of its existence, the school is now facing a problem of transition. At the beginning, as mentioned earlier, the school met the social demands for expansion of opportunities for upper secondary education. Because of the decrease in the age-group population corresponding to the upper secondary education as well as the rapid increase in the attendance ratio at ordinary upper secondary schools far beyond the estimates previously made, the number of new entrants for correspondence courses of upper secondary school has decreased.

There were upper secondary students of 4 million in 1963 (including 95,000 students enrolled in correspondence course, 2.4%) and the number increased up to 5.2 million in 1965 (123,000 correspondence students, 2.4%). But it declined to 4.4 million in 1970 (156,000 correspondence students, 3.6%), and 4.2 million in 1973 (146,000 students in correspondence course, 3.5%). On the other hand, the attendance ratio of lower secondary school graduates at upper secondary schools rose from 69.3% in 1965 to 79.3% in 1970, and 89.4% in 1973. The number of upper secondary schools increased by only 50 during these years, that is, from 4,811 schools in 1963 to 4,861 schools in 1973. But the number of teaching staff at upper secondary schools showed an increase of nearly 73% during the same period.

There were more than 11,000 new entrants to the NHK Correspondence Upper Secondary School in the first year of its existence, their number has now declined to about 5,000 currently.

It may be said that the purpose of the correspondence course of upper secondary school in terms of expansion of educational opportunities at the upper secondary level has been more or less achieved. It has been found that the cost of education per student at the correspondence course of upper secondary school, excluding the production cost of broadcasting programmes, is quite low. The cost per head at the NHK's Correspondence Upper Secondary School was only 76,000 Yen in the school year 1974, while the cost reached 134,000 Yen already in 1969 at the day-time course of public upper secondary school (for the part-time course student it was 128,000 Yen in the same year).

With the decreasing trend of the number of students to whose educational needs correspondence education has responded, the school authorities are now considering two possible new directions of development.

One direction is correspondence social education courses through the broadcasting media. This method of education was made possible under the Social Education Law of 1949 and authorized by the Ministry of Education to start its service in 1962. Correspondence courses for social education have been very popular particularly in the fields of skill and technical training of various kinds and the number of students in these courses has been increasing continuously. The NHK Institute of Education was authorized in April 1974 to offer such courses, utilizing the broadcasting media, in the two fields of Japanese calligraphy and television technology.

The other direction is the junior college level utilizing the broadcasting media. Since there is a strong demand for higher education, correspondence courses for education at the junior college level may meet a felt need. At present, there is not broadcasting programme being offered by NHK for education at the junior college level, and the University on the Air is still at its experimental stage.

Source: "Inventories of Innovative Education Projects in Japan", National Institute of Educational Research, Tokyo, Japan (Preliminary Listing)

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PHILIPPINES EIA No: 21

No: 8 Date of issue: December 1975

Title: IN-SCHOOL OFF-SCHOOL APPROACH (IS-OSA)

Background:

The Philippine public school system has always been nagged by the problem of inadequate funds for buildings, textbooks, teaching positions and other essential needs. The government has consistently followed a pattern of yearly appropriating as much funds as possible for the salaries of new teachers to meet the demands of enrolment increments. The amount for salaries alone was so huge, representing almost 90% of the entire education budget that the other essential needs were always slighted.

In the face of other national development needs, it would be impossible, even unwise, for the government to try to meet increased educational needs through the mere expedient of scaling up appropriations by the same ratio as the increase in school pupulation. Innovations that call for innovative organizational schemes, management systems, teacher-pupil relationships and utilization of resources must be designed to provide the elements of basic education to the burgeoning school population.

One such innovation is the In-School Off-School Approach (IS-OSA) whose major aim is that of maximizing the utilization of the resources of the school and the community and at the same time increasing educational efficiency. It is an imaginative thrust towards achieving an economical and effective delivery of mass primary education. Its strategy is to double the utilization of teachers, rooms and other facilities used for a class of 40 by accommodating 80 pupils.

The idea of In-School Off-School Project was first presented by Dr. Liceria B. Soriano at INNOTECH Seminar held in Saigon in 1973. After that, the project was started and tried out in eight (8) school divisions using one Grade Four class in each division during the schoolyear 1974-1975. Experimental IS-OSA classes in First Year high school have also been set up in six (6) school divisions during the schoolyear 1975-1976.

Actually, the project is a feasibility study that will determine whether or not the approach will possibly offer a solution to the persistent problem of how to bring down the cost of delivering mass primary education by utilizing community resources as part of the education laboratory. The community has merged as the most promising medium for spanning the gap between what the learner knows and what he does. This is believed to be possible through the restructuring off class organization by adopting an alternate in-school off-school scheme, a reorientation of the curriculum by making it community based and finally developing a climate of acceptance of the innovation among teachers, school officials, parents and the community as a whole.

Objectives:

The main objectives of the project and the specific questions to be answered relative to each are as follows:

1. To try out a possible approach to an economical and effective delivery of mass primary education.
    a) How effective is the IS-OSA in developing in the pupils life skills along the continuum of learning in the following areas: Communication Skills (Reading and Language in Pilipino and in English) Mathematics, Science, Araling Panlipunan?
    b) How effective is the IS-OSA in developing in the pupils the right attitudes and values?
    c) Which type of lessons in each subject land themselves best to purely in-school treatment; to purely off-school treatment; or to a combination of both?
2. To prepare try-out, revise and print Self-Learning Kits (SLK) and other instructional materials for the off-school phase of instruction in the Communication Arts, Mathematics, Science, and the Social Studies.
3. To determine whether IS-OSA will help minimize the incidence of drop-outs (school leavers).

Implementation:

IS-OSA was introduced in Grade IV of one English experimental primary school, in each of the eight (8) school divisions of the country during the schoolyear 1974-1975. Grade IV students were chosen because it is believed that they have already completed a three-year learning continuum of each subject and this will also allow a three-year evaluation of the results of the study at the time pupils finish Grade Six.

During the schoolyear 1975-1976 six (6) pilot high schools were chosen to try-out the IS-OSA in First Year in six (6) school divisions.

The approach is partly institutionalized since the "in-school" portion of the process is undertaken in the school within the framework of institutionalized practices and partly deinstitutionalized since all non-formal activities of learners which are contiguous with in-school learning take place "off-school".

Among the priorities attended to in the implementation of the project are: - (i) Orientation meetings on the IS-OS Approach with school officials, teachers, officials of the community, parents and other human resources of the community on the rationale and mechanics of its implementation; (ii) Preparation of Self-Learning Kits, instructional materials evaluative instruments based on the learning continuum, and (iii) Survey of community resources which may be grouped into (a) human, (b) material, (c) institutional and (d) cultural.

In the organization of the class, 80 pupils are assigned to each teacher; 40 (Group A) report to her for one week while the other 40 (Group B) undertakes off-school work. The following week, Group B reports for in-school instruction while Group A does off-school work. Throughout the year this in-school off-school pattern is adopted.

While half of the teachers' class is on off-school work the other half is with her in the ordinary classroom structure. The focus of the classroom instruction is on sharpening the learners's tools for learning to learn; so that they can be more effective independent learners during the off-school portion of the time.

The off-school time of the learner is devoted to individualised learning through self-learning kits or SLKs. A self-learning specific skills or information and corresponding source materials, a list of community resources that may be utilized as well as reinforcement exercises which allow each learner to work at a rate, style and level suited to his capabilities and learning mode.

Inputs:

The Bureau of Public Schools has so far spent around P675,640.00 for the project. This is aside from the donations given by the School Board, PTA's and private citizens in the selected pilot divisions as well as from the modest grant extended to the project by The Asia Foundation and the Canadian Government.

The over-all management of the project is in the hands of the incumbent director of the Bureau of Elementary Education.

She is assisted in the local level by the division superintendent, assistant superintendent, subject are supervisors, school principals and teacher assigned to the project. They attend to the conduct of the study and see that the project is implemented as envisioned. Other division supervisors and personnel attend to various phases of the project to which their expertise is relevant; e.g., in the preparation of Self-Learning Kits, instructional guides and evaluative instruments, and in the statistical treatment and interpretation of data gathered in the study.

Performance and Impact:

Results of the tests given to determine gains or growth in the cognitive skills revealed progress of pupils in all subject areas significant at the one per cent level.

Using the Scale of Values for Studying and Working In-and Off-School developed and validated specifically for the study, reflected results which suggest that a positive attitudinal change has taken place among the pupils.

Even as highly significant positive gains and changes were reflected in the results of evaluatings after one year of its (IS-OSA) implementation, such results have to be interpreted with caution. Since the project is being undertaken to determine its feasibility in Philippine setting, a consideration of other variables including a control group to make the results more meaningful has not been included.

It may not be completely safe therefore to conclude that the gains achieved by the pupils after one year can be credited to the IS-OSA or simply to the normal process of development brought about by various learning experiences.

A questionnaire on reactions of parents, pupils and teachers on the project revealed negative attitudes towards the project as reflected in their responses. While this may partly be due to man's universal nature of resistance to change, it may not mean that the project is totally ineffective.

Key Innovative Features:

1. Potential for 100% increase of teacher/pupil ratios. Pupils receive full-time classroom instruction in school for one week and spend the following week at home working on self-instructional materials and as apprentices with workers in the community.

2. Economy in costs and use of school facilities to serve twice the number of pupils being served in the old scheme.

3. Development and use of programmed self-learning kits (SLK). These kits can be reproduced and applied with modifications -- on a wider scale.

4. Better utilization of community resources (human, material, institutional and cultural). During off-school weeks the pupils need support from parents, peers and other resources persons in selecting and mastering learning units useful to them. They also find opportunities to visit and make use of local libraries, zone, parks, workshops, community resource centers, newspapers, radio and TV facilities, and youth clubs.

5. Active participation and involvement of the community in the learning experiences and activities of the pupil is encouraged.

6. Experiences are provided for non-formal education through alternate weekly "deinstitutionalized".

7. Learning experiences of pupils are enriched through off-school activities instead of limiting their learning activities to the walls of their classroom.

8. Potential school leavers who intend to drop-out due to "boredom in classrooms" or because "they need to help their parents" are given their "breaks" through the in-school-off-school activities, thereby inducing them to continue their studies.

Source: "Inventory of Educational Innovations",
Department of Education and Culture,
National Research and Development Centre
for Teacher Education, Manila, Philippines

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PHILIPPINES EIA No. 22

No: 9 Date of issue: December 1975

Title: BARRIO DEVELOPMENT SCHOOL PILOT PROJECT (BDS)

Background:

The cycle of barrio (village) underdevelopment has continued despite the fact that the barrio has persisted over several generations. The economic and social conditions remain undeveloped, unproductive, socially stagnant and as unattractive as ever. These observations suggest educational implications that led to the conception of the BDS, and to its inception in July, 1970.

Objectives:

By operating a pilot barrio development school that emphasizes occupational training for at least 4 years, the graduates will be able to develop:

1. Better rural life.
2. Better homes.
3. Skills and abilities to increase production.
4. Actively participating citizens.

Implementation:

The BDS is an action-research project on the effective educational approach to the training of future farm operators. It started as an idea and is now accepted as an educational institution in the barrios of Masaya, Puypuy, Rizal, Dila and Tranca, in Bay, Laguna. It is fast gaining nationwide acceptance as an educational approach to barrio agriculture development in the country.

This project is a type of secondary school programme for barrio youth who have decided to live in the barrio as farm operators. The school curriculum among others includes supervised farming programmes (conducted at the home farm of the student) as the core of instruction reinforced by classroom instruction in production agriculture, tool subjects and citizen in the elementary school building designated by the school principal for use.

The school has a minimum of tools and equipment for instructional purposes. Students are encouraged to accumulate capital assets needed in operating their business farms, such as tools and equipment. This feature makes the BDS less expensive to operate than the boarding type agricultural school where practically everything is provided by the school. Credit and savings education is emphasized. Through a guarantee fund scheme, the students are aided in getting loans from the rural bank and in using and paying credit.

Support of the school is on a partnership basis. With P8.00 per month tuition fee, the barrio people partly pays for the teachers' salaries.

School policies rest upon the local advisory council composed of the barrio captain, the PTA president, one outstanding farmer leader, the district supervisor, the school principal and one agriculture teacher.

Inputs:

Financial input for the operation of the BDS comes from the National Board of Education (BNE) and the tuition fees (P80.00 a year per student). In addition, the Barrio Book Foundation (BBF) Inc., in cooperation with the Los Baños Rural Bank, assists the students' farming projects through a guarantee loan fund.

Equipment and materials used in instruction do not include sophisticated ones. Ordinary office tables, chairs, blackboards and other simple materials needed in ordinary teaching make up the material inputs. This is to make it easy for ordinary barrios to open and maintain a BDS. Personnel inputs at the Masaya BDS consist of 4 teachers and 1 research aide working full time in addition to the project director and his assistant, and the local advisory committee who contribute their expertise.

In the management of the BDS, there is close linkage and coordination among the personnel, namely: the project leader and his assistant, the local advisory council, and the teacher in charge. Involvement of local officials and lay leaders is stressed; hence, they are made members of the local advisory council (LAC). They make decisions at the barrio level while UPLBCA do the higher administrative duties.

Performance and Impact:

The BDS idea is now an accepted educational approach. There are many pending requests for assistance in the establishment of BDS type of schools in other parts of the country. Before the establishment of BDS, the barrio of Masaya had frequent scenes of robbery, drinking sprees, and total disregard for peace and order. Parents remained passive and unconcerned about school and community activities. Many of them were unemployed and could not send their children through high school.

It has been observed that since the inception of the BDS in Masaya there has been registered a marked interest and involvement of parents of BDS students as well as other community members in school and community functions. Unemployed adults and out-of-School youth have found a profitable way of spending idle hours on profitable farm enterprises such as rabbit raising, swine raising and others.

On the economy side, the supervised farming projects of the students have earned more than what was invested for the BDS with an estimated economic value of P120,000.00 this year. Since community people are engrossed in farming jobs, peace and order conditions have greatly improved.

Key Innovative Features:

1. The BDS is designed to improve the socio-economic condition of the barrio people by emphasizing occupational training for at least 4 years. It does not prepare students for college, rather it prepares them to be business farm operators; to be self-employed (entrepreneurship).
2. The student conducts a supervised farming program at home with the guidance of the agriculture teacher. This is an actual farm enterprise that expands to full business enterprise upon graduation.
3. Half of the day is spent in supervised farming programme while the other half is for classroom activities.
4. Medium of instruction is mixture of Tagalog and English whichever facilities understanding and learning.
5. The school has a minimum of inexpensive instructional tools and equipment. Students are brought to owners of expensive equipment for study.
6. Credit and savings education is emphasized. Students get assistance in getting loans from the rural bank and in using and paying credit.

Source: "Inventory of Educational Innovations",
Department of Education and Culture,
National Research and Development Centre
for Teacher Education, Manila, Philippines

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
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Country: BANGLADESH
EIA No; 23
No: 1
Date of issue: December 1975

Title: THE COMILLA PROJECT

Background

The Comilla Project started in 1965 as the Village AID Academy, later renamed the Pakistan Academy for Rural Development. The Academy sought to move away from the prevalent theoretical approach to rural development and tried to evolve a strategy based on action research, into the felt needs of the rural population and to build their own capacity to plan and administer, with supporting services from the Government.

The Comilla Project developed four complementary programmes namely; (i) Thana Training and Development Centre (TTDC); (ii) Rural Works Programme (RWP); (iii) Thana Irrigation Programme (TIP); and (iv) Integrated Rural Development Programme (IRDP).

The Thana Training Development Centre provides the infrastructure for the training of thana level officers who carry out the programmes under the Comilla Project. TTDC also serves as the centre for the dissemination of innovations in rural development.

Apart from creating job opportunities for the landless and near-landless in the villages, Rural Works Programme is designed to develop the physical infrastructure of drainage and irrigation as well as farm-to-market roads. It also creates the base for planning and development at the grass roots level.

Under the Thana Irrigation Programme, the concept of controlled irrigation during winter through excavation/reexcavation channels and provision of pumps and tubewells through organized groups helps the expansion of the HYV programme at an accalerated rate.

The focus of the Co-operative Integrated Rural Development Programme (IRDP) is on the organization of small and medium farmers into agricultural co-operatives to boost agricultural production, and release the farmers from the clutches of money lenders and traders through an organized credit system.

RWP started in 1962 all over Bangladesh and, except for some interruptions, its programme of irrigation and drainage development has gone on quite well. TIP has prospered tremendously since is extensive replication in 1967.

The Rural Works Programme, the Thana Irrigation Programme and the Integrated Rural Development Programme heavily depend for their success on the education and training of the rural populace. A systematic weekly training for TIP and IRDP and a periodic training for RWP personnel is conducted. Each irrigation group or village co-operative send to the Thana Training Development Centre their representatives, a manager and a model farmer for training who would, in turn, train their group members during their weekly village meetings. The training at TTDC is normally focussed on the problems of agriculture but is usually expanded to include health and nutrition, family planning, horticulture, and adult education.

The main purpose of the Comilla Project is to provide an effective and efficient infrastructure to promote rural development as a means of alleviating the extreme poverty of the rural people. Secondarily, the project is to promote better agricultural production, greater reliance upon local resources and initiatives, and greater awareness of the need for development through the co-operative way.

The significant features of the Comilla Project lie in its pragmatic and experimental approach and its emphasis on local planning and participation. The linkage between the government's desire to promote development in rural areas and the local institutions provides the potential for accelerated rural development in Bangladesh.

Farmers are given periodic lessons in the modern technologies for improving farm production with the help of institutional credit. A regular weekly training class is held where the services of local experts from the thanas are available.

At the village level, regular weekly meetings of the village societies are held where attendance of all members is compulsory. These classes are taught by the managers and model farmers who have received previous training.

Training materials and teachers' manuals for the weekly training courses are developed through action research.

Teachers from each primary school are given training at the Comilla Academy to increase their capability to act as change agents in the villages. The results of this training programme have been very encouraging.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: THAILAND

EIA No: 24

No: 2

Date of issue: December 1975

Totle: MOBILE TRADE TRAINING SCHOOLS

The Mobile Trade Training Schools (MTTS) were set up in order to provide skill training in various vocational subjects to out-of-school youth and adults and help them to enhance their work skills. Instructors and teaching aids are sent out to clientele population and at their work sites. The subjects taught depend on the need of the trainees, for example, metal trade, auto-mechanics trade, electrical trade, T.V. and radio repair, welding trade, woodwork trade, food preparation, dressmaking, hairdressing, etc. Once the training need in a locality is met, the MTTS moves on to another locality. The duration of the courses is usually five months.

The Adult Education Division (Ministry of Education) is responsible for carrying out this project. The first mobile unit was set up in 1960 in south Thailand, at Chumporn Province. After the initial success of the project there, a second unit was established in the north-east, at Udorn Dhani in 1964. At present the two units are in operation in Naradivas and Udorn Dhani. It is planned to expand this project to every province.

The MTTS also offer courses at the skilled trade level, for example in mechanics, commerce, etc. and accept students who have completed M.S. 4 (Grade 11). There are several specialized trades which require only short-term training syllabuses. The MTTS tries to meet these demands and provide the vocational skills needed.

The objectives of the project are:

1. To provide educational and training opportunities to those who have never had any training, or who require additional training at a low cost and for a short duration.
2. To produce skilled manpower and middle-level manpower required for national economic development, and also to prepare manpower for new jobs;
3. To bring government development activities to the rural people and the people living in remote areas;
4 To raise the standard of living of the rural people;

5. To bring educational and training opportunities to young people regardless of their sex and age, whose basic education is only up to Primary Grade 4.

The Mobile Trade Training Schools are the only type of training schools that can be moved from one place to another very quickly if need be. The schools are always ready to welcome anyone who wishes to receive training so as to earn his living better by taking up a particular trade. For example the Mobile School in the north-east has given training to over 1000 persons in various provinces such as Sakol Nakorn, Kalasin, Udorn Dhani and Nakorn Panom.

The MTTS makes use of resources such as expertise and materials that are locally available.

The MTTS provides further training to graduates of teacher training colleges who are unemployed to enable them to acquire additional work experience and vocational skills.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: NEPAL

EIA No: 25

No: 3

Date of issue: December 1975

Title: ON - THE - SPOT PRIMARY TEACHER TRAINING.

Background

The introduction of the National Education System Plan for 1971-76 (NESP) in the country demanded a large number of trained teachers. The Institute of Education set a target of training 7928 primary school teachers, both pre-service and in-service, within this period. As these teachers cannot be trained through the regular programme on campus, and as the untrained teachers serving in the primary schools are not in a position to leave their schools, a viable programme was designed. It was thought that the untrained teachers who are serving in schools might be given training while they work. Hence, On-the-Spot Primary Teacher Training Programme was started.

Objectives

The main objective of the project is to provide appropriate training and supervised practice teaching (using a clinical approach) to primary school teachers who have the academic School Leaving Certificate (SLC) but lack professional teacher training and are not in a position to leave their schools.

Scope of the project and Strategy Adopted

The on-the-spot programme is run at places where there is a considerable number of untrained teachers in primary schools in the nearby area. The training site is located at a place from which the schools participating in it are no more than one hour's walking distance.

Training classes are run in the morning or in the evening and daily lessons of the trainees are supervised in their own schools by the teacher educators.

Implementation

This programme was first started at Kathmandu in August 1972 with 40 S.L.C. passed in-service primary school teachers from Kathmandu and Lalitpur areas.

The second time it was started at three places: Kathmandu, Bhaktapur, and Biratnagar (a location outside Kathmandu).

As the demand for such a programme increased, a district need survey was made, and Siraha was included in 1974.

Within 1972-74 altogether 128 teachers have been trained out of which 63 completed one semester and 65 completed two semesters.

Course Offering

The courses of study for this project are the same as in the regular primary teacher training programme, and all other requirements are also the same. The only difference is that the courses for one semester take seven months to complete in this project as the classes are run only for limited hours a day.

Present Status of the Project

At present, three places have been selected for on-the-spot programmes: Kathmandu, Kavre, and Rajbiraj. Kavre and Rajbiraj both are new sites. Kathmandu and Kavre projects have already been started and Rajbiraj is in process.

This year a new feature has been added to this project. The activities developed during an action-research project-Development of a Field Oriented Sequence in Primary Teacher Training-are to be applied and retested at Kathmandu and Kavre. It is hoped that this might help in planning and implementing some more useful innovations in primary teacher training.

Source: "National Inventory of Educational Innovations", National Development Group, Ministry of Education, H.M.G. Kathmandu, Nepal (1975).

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PAKISTAN

EIA No. 26

No: 1

Date of issue: December 1975

Title: AGRO-TECHNICAL EDUCATION PROJECT - PAKISTAN

Pakistan is on the threshold of an agro-industrial revolution which is having its repercussions on all aspects of life of the present generation. Technology is affecting the quality of life of every individual in rapidly increasing magnitude.

Until recently, vocational education in Pakistan has been imparted in the post-secondary stage of education. The earlier stages of education, i.e., elementary and lower secondary have almost been entirely devoted to general education. The development of abilities and attitudes to work and particularly employable skills has been largely neglected.

Experience has shown that deferment of work-based education to a later stage is based on a mistaken premise. Individuals develop attitudes and inclinations in the earlier, formative part of their school life and their spirit of curiousity provides a powerful motivation for them to explore experiment and to do.

Against this background the Government of Pakistan launched the Agro-Technical Education Project in order to introduce elements of work-based education at the elementary stage, starting from grade 6 onwards and providing at least 10 periods per week to vocational courses.

The programme covers three broad areas of work-based education: (i) Demostic Science; (ii) Woodwork, metalwork and applied electricity and electronics; and (iii) Agriculture.

The objectives of this project are:

i) To introduce vocational courses in the curricula for classes VI to VIII in the elementary schools;

ii) To revise the curricula, syllabi and textbooks so as to emphasize learning of concepts and skills and to encourage observation, exploration, experimentation, practical work and creative expression;

iii) To develop the total personality of the individual to become dynamic, creative, and able to comprehend fully the nature of technical and social change and have a deep concern for the improvement of society;

iv) To mobilize the youth for leadership roles through participation in programmes of social service and environmental improvement and by inculcating in them a sense of the dignity of labour;

v) To provide a comprehensive programme of studies through the integration of general and technical education with options open for transfer from one course of study to another.

Well-defined objectives covering the areas of Domestic Science, Agriculture, and Woodwork, Metalwork and Applied Electricity and Electronics have been laid down and translated into class-cut activities in the cognitive, affective and motor-sensory domains, in order to help the teachers in designing their instructional work.

A massive in-service teacher training programme has been launched to prepare the teachers to effectively implement the agro-technical education programme. Supervisory officials are given seminars and refresher courses to make them conversant with the principles, aims and objectives of vocational education.

Laboratories, workshops, tools, implements and other teaching aids have been provided

For practical work in agriculture, students are encouraged to participate in actual agricultural operations on the lands of the farmers in their communities and also develop agricultural projects in their own farms

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
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of receiver)

Country: INDIA
EIA No: 27
No: 8
Date of issue: December 1975

Title: THE MEADOW SCHOOL

The Meadow School, an experiment in non-formal education, is an open-air school to provide education for the Adivasis, a tribal group in the remote rural areas of Maharashtra State in India. The idea of a school without walls was born when the principal and the headmistress of a village school began to worry over the unusually poor attendance of children in their school. They decided to investigate why the children did not attend the village school. They walked to the meadows and found the children engaged in looking after the cattle and protecting the fields green with new crops.

Traditionally, the Adivasi children look after the cattle for their families. During the rainy season, while the crops are growing, they herd the cattle and keep them off the growing fields. Materially, the Adivasis are among the poorest of the rural communities in India. But their surroundings and way of life offer other compensations -- they are alert, fit and carefree, agile, resourceful and resilient. Their situation makes them self-reliant and ready for manual work in contrast to some of their school-bound contemporaries. But they are not the sort of people to take too readily to book-learning. So, instead of trying to get the children into the school, the principal and headmistress decided that the school go to where the children were, out in the meadows.

The Meadow School is designed to take education to the Adivasi children in their natural environment, and for learning experiences to be derived from insights into their way of life, free from fear and suspicion. (Tribal folks are normally suspicious of anyone who tries to change their normal way of life.)

The Meadow School is also a bridge easing the passage of the tribal children to the village school. It prepares them, though imperceptively, to participate in the more formally organized mode of education of the kindergarten and primary schools in the village.

Out in the meadows there is no school building, no school paraphernalia, no sign at all of a school in the traditional sense of the word, but learning is induced through various unconventional ways contrived by the ingenious teacher.

The Meadow School has no organized educational programme. The activities include games, talks, and such other activities as arise naturally from the immediate environment. The emphasis is on the

Adivasi's natural enjoyment of physical movement and adventure and his curiosity about nature.

Much attention is given to encouraging children to talk, to name, to describe and to express themselves in words. Measuring games are invented to develop the concept of space and time. For instructional purposes, the Meadow School makes use of all available natural and material resources which abound in the community.

The teachers make no attempt to force the children to attend the village school. However, slowly and gradually, they are introduced to new ideas, say, on health and hygiene on the benefits of better education, etc. Now, some Adivasi children are attending the regular schools.

Source: "The Meadow School" slide-sound presentation (No. 76) prepared by the Development Support Communication Service, Bangkok, and a booklet of the same title published by the Ministry of Education and Social Welfare, New Delhi, India

Contact Organization:
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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: IRAN

EIA No: 28

No: 1

Date of issue: December 1975

Title: THE ARMY OF KNOWLEDGE (EDUCATION CORPS)

The Army of Knowledge, or Education Corps, was established in Iran in 1962 for the purpose of utilizing the young high school graduates to teach rural children, youth and adults during the period when they would normally be doing their compulsory military service. This plan was put into effect through the joint services and co-operative action of the Army and the different government ministries especially the Ministry of Education.

The young men and women who are recruited for this programme are given a four-month intensive training. After their training, they are individually, or in small teams, appointed to a village or a group of closely located hamlets which have requested their services and whose people have accepted the responsibility of providing school facilities. In these villages, these young men and women work under supervision for fourteen to twenty months after which period, if they prove to be efficient, interested and so desire, they may be employed by the Ministry of Education as regular teachers and civil servants.

The members of the Army of Knowledge are essentially multi-function village-level workers who act as agents for an integrated approach to rural development. Besides mounting literacy campaigns, building and teaching in village schools, opening libraries and mother centres, providing sports and recreational facilities, and setting up Boy Scouts and Girl Guides, they are called upon to promote health and sanitary measures, like digging wells, construction of shower baths, separating livestock from living quarters, using first-aid kits, and similar activities. They further help in the distribution of land, introduction of farm machinery, setting up of rural co-ooeratives, and helping the villages to obtain support from various government agencies.

A special National Teachers College was established which offers under-graduate courses as well as courses for the master's degree in various branches of secondary education. The students to attend this College are carefully selected. After graduation they are assigned either as supervisors, teachers and specialist staff of the Army of Knowledge, or as secondary school teachers in the regular schools. The idea is to keep the way open to members of the Corps if they decide to remain in the education service and make it their life-time career.

The Army of Knowledge is an innovative way of providing teachers for schools in remote areas. Since the inception of the programme in 1962, more than one hundred thousand high school graduates of both sexes have been trained to teach children and adults and carry out development work in the rural areas. Thousands of villages have responded by provide buildings and other school facilities.

The members of the Education Corps are given periodic in-service training to increase their proficiency in the work they are doing. An Army of Knowledge Teachers College has been established to provide further education to Corps members considerable number of whom decide to remain in the education service as their life-time career. In order to provide career prospects to these teachers, special programmes for upgrading their qualifications have been launched.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: JAPAN

EIA No: 29

No: 3

Date of issue: December 1975

Title: IN-SERVICE TRAINING FOR SCHOOL TEACHERS IN JAPAN - SHIZUOKA PREFECTURAL INSTITUTE OF IN-SERVICE TRAINING FOR TEACHERS

Background

For educational administration in Japan, there is a board of education, established in each of the 47 prefectures, as well as the Ministry of Education at the national level. The board of education has an education centre or an institute of education whose main functions are to organize in-service training for teachers and to conduct educational research.

The Shizuoka Prefectural Institute of In-Service Training for Teachers is one of such institutions. It was visited in September 1974 by a group of the participants of the Regional Field Operational Seminar on Educational Innovation in Asia, organized from 21 August to 4 October 1974 jointly by the National Institute for Educational Research (NIER) of Japan and the Asian Centre of Educational Innovation for Development (ACEID).

The Shizuoka Prefectural Institute for Educational Research was established in April 1948 in Shizuoka City, which was replaced in March 1956 by the Shizuoka Prefectural Institute of In-Service Training for Teachers at the present site in Mishima City. In-service training programmes were started then, utilizing the boarding system and the group-work method as one of the unique features of the Institute.

Organization of the Institute

- Director
  - Deputy Director
    - Division of General Affairs
    - Department of General Training
      - First Training Section
        - Educational administration and finance
        - Principles of education, curricula, and pupil-guidance
        - Management of school and classrooms
      - Second Training Section
        - Moral education
        - Extra curricula activities

        - Education of youth
        - Social education (Adult education)
- Department of Training of Teaching Subject Areas
    - Third Training Section
        - Physics
        - Chemistry
        - Biology
        - Geology
        - Technical education
        - Home economics
    - Fourth Training Section
        - Arithmetic and mathematics
        - Foreign languages
        - Teaching methods and evaluation
        - Educational technology
- Department of Counselling and Dissemination
    - Section for Counselling
        - Observation and guidance
        - Educational counselling
        - Special education
    - Section for Documentation and Dissemination
        - Management of the attached library
        - Collection and maintenance of educational materials
        - Collection and maintenance of historical documents of education
        - Publication of bulletins, research findings and others

In-Service Training Programmes

(1) Goals

a. To make teachers of the public schools within the prefecture fully aware of the educational situation in the world and current problems of education in the country,

b. To make them try to understand and solve such problems,

c. To promote in them a deep sense of dedication for education and enriched ability for leadership,

d. To improve their quality as persons in the teaching profession on the basis of their awareness of being Japanese citizens.

(2) Principles for organizing the programmes

a. To place special emphasis on group work and discussions, and to deal particularly with problems of various kinds concerning schools,

b. To strengthen human relations and make the training programmes more effective through living together in the dormitory.

Research Activities

(1) Basic policies

a. To conduct basic research on the contents of the in-service training programmes in order to make the programmes effective,

b. To conduct practical research on matters required for the solution of various problems involved in educational practices, in collaboration with the community and the schools,

c. To prepare basic materials necessary for planning and execution of the policies for the solution of the current problems of educational administration, and

d. To conduct research mainly on methods of teaching which correspond to the advancement of the society.

(2) Major themes for research in 1974

a. Research on effective management of school grades best fitted to the characteristics of the respective grades,

b. Research on the current conditions of pupils' club activities in schools within the prefecture and also on what they should be,

c. Research on teaching materials for science teaching at the primary level,

d. Research on systematization of teaching and learning,

e. Research on desirable ways for educational counselling in the classroom, and

f. Research on the current trends in educational research in the prefecture.

Short-Term Training Programmes on Pedagogical Subjects

(1) Objectives

The programme aims at making the participants try to understand and solve, from a broad perspective and also from the standpoint of the essential qualities of education, various problems concerning school education and its practice, through their participation in the series of the preliminary, main and follow-up training courses.

(2) Participants

Participants are teachers of the middle class with teaching experience of more than five years, nominated by the Director of the Prefectural Board of Education among those recommended in the following manners:

a. Concerning teachers of the primary and lower secondary schools, the participants are those recommended by the director of the local education office on the basis of the communication from the school principal to the local board of education.

b. Concerning teachers of the upper secondary school, the participants are those recommended by the school principal.

(3) Schedule

The programmes were organized in 1974 as follows:

	School	Sex	Preliminary	Main
1.	Lower secondary	48 Male	13 May	27 May - 8 June
2.	Primary	48 Male	14 May	10 - 22 June
3.	Primary	48 Female	16 May	24 June - 6 July
4.	Upper Secondary	48 Male	17 May	22 July - 3 Aug.
5.	Upper secondary	48 Male	15 July	19 - 31 Aug.
6.	Lower secondary	48 Female	16 July	24 Sept. - 5 Oct.
7.	Lower secondary	48 Male	4 Sept.	21 Oct. - 2 Nov.
8.	Primary	48 Male	11 Oct.	25 Nov. - 7 Dec.
9.	Primary	48 Female	9 Dec.	20 Jan. - 1 Feb. 1975

The follow-up training courses are organized for three days about one year later.

Content of the training programmes

"Roles of School Education" was the basic theme common to all the programmes in 1974.

a. Preliminary Training

i. An orientation course is given in advance to those who are expected to attend the main training course.

ii. The participants are divided into groups and preliminary discussions take place concerning the particular topic of each programme.

iii. The preliminary training is given about one month prior to the main training as follows:

Morning: General explanation, grouping and self-introduction

Afternoon: Group-work

b. Main Training

i. Training through speeches, lectures and discussions concerning some topics selected among the following:

General culture, by lecturers invited from the outside:

Philosophy, religion, history, politics, economy, sociology, international affairs, natural science, art, literature and others.

General topics for the teaching profession, by lecturers from both the inside and outside:

Educational thought, history of education, educational laws, educational administration, school management, grade management, classroom management, curriculum, learning guidance, pupil guidance, career guidance, psychology of children and youth, teaching profession, and others.

ii. Training through group work

Participants are divided, according to their localities, types of their schools, their preferences, into groups dealing with the following topics:

Learning guidance, moral education, special activity, management of grades and classrooms, pupil guidance, career guidance, school management, educational laws, human relations of teachers.

iii. Training through observation visits

Visits are made to schools and other places of educational interest.

c. Follow-up Training

The follow-up training aims at further promoting practical activities by participants and strengthening the friendly ties among them.

The content of the programme consists of the following:

i. Training through group work: encouragement for future activity by exchanging experience.

ii. Training through reporting of experiences: to strengthen common understanding by listening to the presentation of reports by three or four representatives and the following plenary discussions.

iii. Training through lectures.

Group Work and Reporting

As mentioned above, for each of the preliminary, main and follow-up training courses, group work is given great emphasis. In each group efforts are to be made to promote friendly and cooperative ties among the members of the group and to learn from each other through their active discussions. Each group is requested to prepare a preliminary training report, a main training report and a follow-up training report. All the reports are presented at the plenary sessions for further discussion, and the collection of all the group reports for each of the three training courses is given to each participants.

Conclusion

The way in which in-service training programmes are conducted at the Shizuoka Prefectural Institute for In-Service Training for Teachers is called "the Shizuoka Method", and it is well-known to those concerned with teacher training in Japan. As mentioned above, the Shizuoka Method puts great emphasis on residential and group-work training. In particular, the programmes on pedagogical subjects consist of the three parts of the preliminary, main and follow-up courses.

The total number of teachers participating in different in-service training programmes of the Institute at any given time during the year is generally between 70 to 80. (The Institute's dormitory can accommodate 96 teachers at a time.)

Finally it should be mentioned here that the Institute is now trying to integrate its in-service training programmes and its research activity for more effective fulfillment of its functions and to create also another "Shizuoka Method" for the integration of in-service training for teachers and educational research.

Source: "Inventories of Innovative Education Projects in Japan", National Institute of Educational Research, Tokyo, Japan (Preliminary Listing)

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PHILIPPINES

EIA No: 30

No: 10

Date of issue: December 1975

Title: THE UNIVERSITY OF THE AIR

Background

The University of Mindanao, in its desire to facilitate opportunities for higher education among teachers and other professionals who are interested to pursue advanced degree but who are unable to do so because of their assignments in the rural areas, explored the potential of radio as an effective tool for higher learning. The University of Mindanao opened on an experimental basis the University of the Air patterned after Great Britain's "Open University" and Japan's Nippon Hoso Kyokai audio-visual education project.

The proposal for the University of the Air project by the University of Mindanao was approved by the Bureau of Private Schools on June 8, 1969. It became operational in the school year 1971-1972.

Objective

The University of the Air was designed to establish an accredited graduate education programme through the use of radio broadcast. The target population for the programme are public and private school teachers and other professionals who are interested in pursuing graduate studies leading to an M.A. degree but who are prevented from doing so by the distance of their place of assignment from the university.

Implementation

Before the University of the Air became operational, the following preparatory measures were taken: a) Preparation of feasibility study; b) Preparation of proposal for approval by the Bureau of Private schools; c) Preparation of proposal for fund assistance; and d) Experimental try-out with prepared taped lectures, study guides and workbooks.

The University of the Air started with less than a hundred students who signed up for the course during its early operation in 1971. The enrolment has grown since then to its present size of 1,901 students.

The University of Mindanao Air Programme consists of taped lectures which are broadcast over the stations of the University of Mindanao Broadcasting Network (UMBN) strategically located in various parts of Greater Davao. At least three subjects per semester are offered on the air broadcast at stations DXUM for students around Davao City area, DXDS for students around Digos area and DXDN around Tagum area.

Each subject consists of 34 lectures each 30 minutes long. Each lecture includes a review of the previous lecture, presentation of new subject matter, and questions to be discussed by students in their respective forum meetings as well as those that they will include in their workbooks. Presentation of air lessons is purely by lecture method by a duly qualified lecturer on the subject from the graduate school of the University.

Basic subjects like Methods of Research, Statistics and Advanced Tests and Measurements are not offered through the air. Students in the different areas are expected to enroll in these basic subjects during the summer and attend actual classes in the main campus. Likewise, thesis writing is not offered on the air.

Seventeen forum meetings are held in the public schools in different areas by forum leaders who are master's degree holders. In these meetings, forum leaders moderate discussions which revolve around the air lectures heard by the students. The application of principles and concepts to actual needs of their own communities is the primary topic in these discussions. Forum leaders also guide students in accomplishing their term paper as well as workbook requirements.

The curriculum of the UM Air Programme follows the regular curriculum offered under the regular graduate course in the main campus.

The University of Mindanao plans to continue the project with some improvements such as: use of other formats for the broadcast lectures, revision of schedules of airing time, expansion of resources and other facilities and expansion of its services by placing under its air coverage the whole area of Mindanao and Sulu.

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Inputs

The UM Air programme is a joint project of the University of Mindanao and the Asia Foundation; thus the expenses incurred including money value of staff time, facilities and services are shared by them.

The University of Mindanao has given to the project a total of ₱154,443.00. From this amount, ₱112,573.00 was for airtime cost, ₱39,880.00 was for administrative fees for producers, directors, announcers and technicians, and ₱2,000 for other arrangements for "live" lectures.

The Asia Foundation has extended to the project a grant of ₱15,002.00. Out of this amount, ₱1,800.00 was for the cost of tapes, ₱4,050.00 for honorarium for lectures, ₱3,000.00 for transportation and ₱2,500.00 for freight and handling of tapes.

A Committee on Evaluation oversees the programme. The project director, reporting to the committee, takes full responsibility of the implementation of the project. Under her are the faculty, lecturers and forum leaders who compose the academic staff assisted by the clerical and technical staff.

Problems and Constraints

The original objective of the UM Air to reach all teachers and other professionals interested in prusuing graduate studies in the whole of Mindanao and Sulu areas was not achieved. Enrollment was concentrated only in the three provinces of Davao.

Problems and constraints met in the implementation of the project were: 1) lack of reference materials in the forum area; 2) non-coincidence of broadcast time of lectures with available free time of the target population; 3) limited variations of broadcast techniques; 4) technical problems in re-broadcast transmission and reception by students; 5) insufficient coordination among forum leaders, lecturers and subject professors; 6) inability of lecturers to get immediate feedback from student about the lectures aired.

The problem on the lack of reference materials was solved by sending package library on rotation basis to different forum areas.

Recommendations made by the evaluation committee to solve the other above mentioned problems are as follows:

1. The lecturer broadcast time of 5:00-5:30 a.m. and 8:30-9:00 p.m. should be re-scheduled from 6:00-6:30 p.m. This recommended time is given out of actual experience and observations on the living habits of most teachers.

2. It was suggested that variation on lecture broadcast techniques be employed to make it more interesting and pleasant. Suggested techniques to avoid monotony include the use of dialogue, trialogues, radio drama and others.

3. Lectures should be re-broadcast in areas when the weather conditions prevent clear reception by students.

4. Periodic seminars preferably during summer for forum leaders on the subject they are to handle during the ensuing semester be conducted to keep them abreast of the issues and trends pertinent to the courses.

5. Closer coordination among the forum leaders, lecturers and subject professors be established.

6. A better communication network should be established to enable the lecturers to get immediate feedback from students about the lectures being aired.

7. Since only students in the Davao areas are utilizing the programme at present, a campaign should be done to reach and service students on other regions of Mindanao where the University has radio stations like in Zamboanga, Cotabato, Cagayan, Iligan and Bukidnon.

Performance and Impact

An evaluation of the performance of the "University of the Air" for the school year 1971-1972, 1972-1973 and the first semester of 1973-1974 was conducted in compliance with the memoranda of the Director of Private Schools dated August 6, 1973. The purpose of the evaluation was to find out if through the said programme the students have accomplished as much or more than those who were taking their regular classes in the main campus and if the operation of the programme has relevance to the objectives of Presidential Decree No. 6-A which encourages broadcasting. The evaluation committee was composed of the division superintendent of city school of Davao, district superintendent of private schools for Davao and the vice-president for educational services of the University of Mindanao.

The formal and informal instruments/methods/techniques which were used in the evaluation include: surveys, observations, interview, checklists and rating scales.

The evaluation produced the following results:

1. Attendance in forums was very satisfactory.
2. Use of variety of techniques in discussion was observed.
3. Students' performance in comprehensive examination was very satisfactory.
4. Papers submitted for completion were at par or even better in some instances when compared with the work of some regular students.
5. Enrollment in the UM Air Programme has gone up.

Key Innovative Features

1. The use of radio as an effective tool to higher learning in extremely remote places formerly beyond the reach of the formal educational system. Through the radio, the teachers in the distant places are informed on new dimensions, trends, strategies, approaches and methodologies in teaching that would make them better prepared teachers.

2. The UM Air Programme is more economical in many ways both on the part of the students and on the government. The students do not have to commute daily. The government will also save financially in faculty development through scholarship grants, seminars, workshops, conferences and the like that often times deprive pupils of many class days when teachers attend professional gatherings required for their in-service education.

3. The UM Air Programme helps the government in developing educational centres out of the forum sites by dispersion of too much dependence and concentration of education in cities. Consequently, the dispersal of educational concentration in cities helps the inevitable growth of the rural areas.

4. The University of Mindanao administration has adopted a feasible way of raising capital foe higher education needs through

the services of the Davao Savings Loan Bank, Davao City that extends loans at reasonable rate for assistance to the students of the UM Air Programme.

5. Other features of the project which are also worth mentioning are: a) a systematic programming of lectures and utilization of periods of time before and after the usual work day; b) the use of taped lectures combined with forum meetings, group discussions and independent study; and c) an accredited graduate programme through the radio which is the first of its kind in the Philippines.

Source: "Inventory of Educational Innovations", Department of Education and Culture, National Research and Development Centre for Teacher Education, Manila, Philippines

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: SRI LANKA

EIA No: 31

No: 2

Date of issue: December 1975

Title: SARVODAYA SHRAMADANA

The Sarvodaya Shramadana Movement of Sri Lanka (Ceylon) had its beginning in 1958.

"Sarvodaya" comes from two Sanskrit words: "sarva" which means "all" and "udaya" which means "awakening". "Sharamadana" also comes from two words: "shrama" meaning "energy and labour", and "dana" meaning "sharing". Sarvodaya Shramadana is, therefore, interpreted as the voluntary sharing of one's thought, energy and labour for the achievement of the welfare of all.

Sarvodaya Shramadana has become a people's movement. Its founder and leader, A.T. Ariyaratne, was awarded the Magsaysay Award (Philippines) in 1972 for outstanding leadership and achievement in rural development.

The Sarvodaya Shramadana is a rural development self-help project which is aimed at uplifting the most deprived rural communities. It was officially launched in 1969 in 100 villages. At present, there are well over 300 villages with various on-going village development schemes.

The programmes of Sarvodaya usually begin with a socio-economic survey of a village conducted by volunteers with the participation of selected village leaders. The problems thus co-operatively identified, they then plan what action (projects) have to be carried out by themselves. They discuss the equipment and materials they need, how and where to get them. They then start implementing their projects. Projects like the following are common: sinking wells, digging latrines, clearing home gardens and planting various crops, providing necessary equipment such as school furniture, clothes and books for school children, organizing literacy and vocational classes, conducting health lessons and demonstrations, child and maternity care work, teaching songs and dances, establishing places of worship, and many others. Personnel from government agencies concerned with rural development are drawn into the programme. These activities, and many more, are repeated in hundreds of villages.

The objectives of the movement are:

a) To develop the personality of youth in keeping with their culture and considering the rapid changes taking place.

b) To awaken the rural communities to the realities of social changes and help them become agents of such changes.

c) To achieve national integration by giving opportunities to all, irrespective of caste, race, religion or language, to contribute their share in nation-building.

Community development projects and programmes are formulated and developed by the villagers themselves with the assistance of young, idealistic and dedicated volunteers. These young men and women live with the villagers for several weeks, and work with them on the planning and implementation of much-needed construction projects. They instil and develop among the villagers the idea of organizing themselves for self-improvement. As the coverage of the project increased and more development schemes were launched, it became necessary to assemble the young volunteers to provide for exchange of views and further training. Thus, the Sarvodaya Educational Institute was established in Colombo in 1970 to provide more formal training for the volunteers. The training includes: (i) principles and philosophy of Sarvodaya; (ii) knowledge and skills in organizational techniques; (iii) cultural life and values of the villages with particular attention to traditional arts and crafts, folk songs and dances, religious and ritualistic practices, games, festivals, etc.; (iv) communications techniques and skills; (v) first aid; (vi) knowledge of the Constitution, the various welfare services, civic amenities and development programmes provided by the government bodies, etc.

A Sarvodaya Centre has been established which houses the main Secretariat, serves as the principal information centre, serves as the quarters of full-time volunteers, and provides board and lodging for local and foreign visitors. The Centre is equipped with an audio-visual unit, a printing unit, carpentry and metal workshop, agricultural nurseries, a sales pavilion for agricultural products, a library and several training rooms.

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Country: PHILIPPINES EIA No: 32

Classification:
(for the use
of receiver)

No: 11 Date of issue: December 1975

Title: TEACHERS EDUCATION PROGRAMME FOR RURAL DEVELOPMENT (TEP-RD)

Background

The Cagayan Valley Region has vast natural resources in agriculture. Agricultural methods used by the people however are still antiquated and production is far below par. Change agents are needed to accelerate rural development in the area.

The elementary school teachers who could serve as effective change agents have not really been mobilized in efforts towards rural development. Most of them teaching work education, Green Revolution, nutrition education, etc., lack the needed technical knowledge and skills. In addition, there is a low incentive system for these teachers in terms of economic and professional advancement which conditions have resulted in low teacher morale. To complicate matters, the elementary schools do not have adequate instructional materials and facilities. Thus, school projects are poorly conducted and in most cases, the elementary schools do not serve as effective show window of rural development projects.

Given the right opportunity and adequate facilities, the elementary school and its teachers could be effectively mobilized to catalyze and effect accelerated rural community development. The CVIT conceived of a scheme under the TEP-RD by which teachers could run cooperative farm projects in school and at home and thus serve as change agents in promoting accelerated rural development.

Objectives

1. Develop a systematic educational programme for public elementary school teachers in agriculture to accelerate socio-economic growth in rural communities.
2. Strengthen the competencies of public school elementary teachers to make them effective change agents in promoting community development in their respective work areas.
3. Assist teachers who will serve as models and change agents in rural development, in getting started and established in agricultural projects.
4. Provide opportunities and research materials for rural development.

Implementation

A systematic education programme for elementary school teachers was organized by offering the Master of Arts in Teaching Elementary Agriculture (MATEA) for elementary school teachers as well as others who are desirous to take the course. This is offered in selected learning centres in Cagayan Region under the coordination of the CVIT with the cooperation of the different school officials in the region.

Instruction is mainly effected through the development of a modularized instructional system. Instructors in learning centres act also as technicians who follow up and evaluate the impact of the programme through the projects. There are committees in these centres that conduct researches which would give constant feedback upon which measures for expansion and improvement of the programme will be based.

Teachers enrolled in the MATEA organize the Savings and Loan Programme using the MATEA unappropriated surplus as revolving fund ("Seed money") for starting and establishing their farm projects. These projects are a required laboratory or application of the theoretical instruction in Agriculture.

After gaining adequate skills and know-how in agriculture, the teachers may now impart their newly acquired skills to the pupils, neighbors and friends in their respective schools and communities. Their farm projects serve as concrete models for the people to follow.

Management

The programme is headed by the CVIT President as part-time administrator and the Regional Director for Cagayan as part-time co-administrator. The CVIT College Dean serves as regional coordinator while the five (5) school Division Superintendents in Cagayan Region are the provincial coordinators for the TEP-RD. All the Assistant Superintendents, Agricultural Coordinators and selected faculty members of the CVIT help in the coordination, instruction and other activities involved in the programme. The whole programme is a cooperative and coordinated endeavour between the CVIT on the one hand and the DEC regional and division office on the other hand.

Performance and Impact

The programme having been newly initiated is only in the process of evaluation using both the formal and the informal techniques of evaluation. However, it is safe to infer that the programme is being well received by the clientele. During the first semester of the school year 1975-76 alone, there has been a registered enrolment of more than two thousand teachers and other school officials.

Key Features

1. Harnesses the potentials of elementary teachers towards rural development.

2. Enhances the professional, social and economic growth of teachers.

3. Makes the school a real show window of the Green Revolution Programme.

4. Gives teachers the opportunity to continue their studies while earning (by conducting profitable farm projects to augment the low salary they get from teaching).

5. Provides opportunities for teachers to update their technical competencies in view of the recent shift of the national policy on education to the work-oriented curricula.

Source: "Inventory of Educational Innovations", Department of Education and Culture, National Research and Department Centre for Teacher Education, Manila, Philippines

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PHILIPPINES

EIA No: 33

No: 12

Date of issue: December 1975

Title: NON-GRADED OPEN SCHOOL PROGRAMME

Background

The continuous search for innovative education of which the Department of Education and Culture itself spearheads following a national education reform decree and the urgent need to evolve a system which best develops Filipino children into responsive and aware citizens were the two main problems which motivated the project proponent to conceive the idea of a non-graded open school to be called ANGELICUM.

The project, which started in 1972 after the Bureau of Private Schools granted a permission to open Angelicum School, is specifically inspired by the Non-graded School Approach with adaptations adjusted to the Filipino milieu and mental orientations.

Objectives:

The project is geared towards the drawing of the best in Filipino attitudes towards work and studies. Hopefully, the product will constitute a new breed of citizens of the New Society who is among other things honest, self-reliant industrious, a decision-maker and a positive thinker.

Its specific objectives are:

1. To develop trust and confidence in the child's capabilities which would find value and integration in a pluralistic society.
2. To develop a flexible programme which integrates and develops academic and vocational aptitudes.
3. To devise a system of reaching learning assimilation levels and be able to mold students' aptitudes and capabilities to the optimum.
4. To initiate motivational approaches which would inculcate positive habits and judgments.

Implementation

The Angelicum Non-graded Open School opened in July 1972 after it was granted permission by the Bureau of Private Schools. Facilities were acquired with the Philippine Dominican Province's support.

The old Sto. Domingo Seminary gave way to six classrooms and a small library. Teachers and students were recruited. Orientations for faculty and parents were conducted:

The following activities were subsequently carried out:

1. Weekly meetings with faculty were conducted on two-levels: lecture was given by school officials on the first and a sharing session participated by teachers on the second.

2. Unscheduled conferences with teachers regarding specific problems.

3. Meetings with parents which wero actually orientation sessions.

4. Field trips for the students to further implement the system's flexible curriculum.

5. Continuous search for learning situations.

6. Extension of school programme to girls.

The Angelicum, in its fourth year now, envisages to engage in continuous innovation of learning situations; expand its services to all age groups with the initial establishment of a Playhouse for 3-year olds this schoolyear; continue holding seminars and faculty development programme activities; improve its curriculum to better suit varied groupings; and strengthen its vocational programme.

Management

Managing the School is a director assisted by a principal. The Philippine Dominican Province oversees the administration and supervision of the School.

Performance and Impact

Evaluation of the project were conducted during the course of the project by the Guidance Office of the School and some graduate students from various colleges and universities.

It was stated in the accomplished questionnaire that the results are still in the stage of finalization.

Key Innovative Features:

1. The school has no graded structure. It has, instead, integrated traditional grade years into 11 years of continuous schooling in all subjects. This means that a child in his first year of schooling is not limited to the lessons and skills for a first grader within the year. If he is a fast learner, he is given lessons and taught skills fitted to his advancing level. If his pace consistently continues, he is followed through up to his maximum capacity. If he has reached the highest level prescribed within the 11 levels, he may still advance but not graduate because he must develop psychologically and

emotionally to be ready for higher studies in college. He therefore continues schooling and he is given related studies or advance lessons. On the other hand, if he is slow, he is made to remain where he has not mastered his skills. Until such time that he is rady to advance, he is not given anything new regardless of whether other children have gone to other levels and left him and new ones have already joined him.

To bring about a sense of continuity, objectives for each learning skill have been synchronized. Level one, for instance, covers skills 1 to 20, level 2, skills 20 to 30 and so on. The children do not all begin and advance in the order by which the skills are arranged. As they approach each subject area, their assimilation level is first determined. They are made to try out multi-leveled materials ranging from those for slow learners to fast one and according to the results each child begins from his particular level of assimilation and is led through his own pace.

2. Learning situations within the classes are not planned. While the teacher follows the order of learning skills as have been synchronized, it is the children who give their own means of assimilation. Their interest level is the teacher's guide. Their spontaneous reactions are her starting point.

3. Subject areas are integrated.

4. Curriculum is flexible. The arrangement of skills for the learning levels are merely skeletal guides. If a student has finished all the skills in the 11 levels within 8 years, the curriculum is stretched for him or is expanded with related studies.

5. The open classroom which is inherent in the Angelicum School is a total departure from the idea of a traditional classroom. Instead of a place where a child passively acquire knowledge and skills, the open classroom is one where he learns things, words, concepts in his own way with books and materials from which he can find further explanations.

6. In consonance with the free learning atmosphere, a sharing pattern in administration re-defines roles of school officials from decision makers to resource persons and facilitators of change.

7. Constant innovations in learning situations which requires utmost creativity.

8. Constant evaluation through sharing inter-disciplinary approaches and intense involvement in the learning process.

Source: "Inventory of Educational Innovations", Department of Education and Culture, National Research and Development Centre for Teacher Education, Manila, Philippines

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: JAPAN

EIA No: 34

No.: 4

Date of issue: December 1975

Title: ADACHI HIGHER VOCATIONAL TRAINING CENTRE

The Adachi Higher Vocational Training Centre in Tokyo is one of 350 centres of the kind in Japan. It offers training courses in many different trades.

The Centre was established in 1958 by the Tokyo Metropolitan Government under the name of Adachi Public Vocational Guidance Centre. It was renamed as Adachi Higher Vocational Training Centre in 1971 when it was moved to its present site. It has two divisions; one, for administrative affairs and the other, for training programmes. The school is headed by a principal. The total numbers on its staff is 109 including 69 part-time instructors.

Training courses conducted by the Centre are divided into four types as follows:

a) Higher Vocational Training Courses

b) Specific Vocational Training Courses

c) Courses for Job Change

d) Evening Courses

Standards of curriculum, time allotment, etc. are decided by the Ministry of Labour. A one-year training course in woodwork, for instance, is composed of 110 hours for general subjects, 369 hours for special subjects, 616 hours for basic skill practices, and 778 hours for applied skill practices.

To secure admission to the Centre, a student with a minimum qualification of lower secondary school graduation has to make an application for and pass an entrance examination which includes Japanese, mathematics, aptitude test, interview and physical examination.

The students of the Centre are entitled to the following benefits or privileges:

a) Free tuition fee and learning materials.

b) Unemployment insurance allowances given to those who have to leave their jobs to pursue their training programme.

c) Job placement made by the Public Employment Security Office for those who finish the whole course.

d) Those who finish the course are qualified to become assistants to second grade technicians and to take trade tests provided by the government to become second grade technicians.

The Centre maintains a programme for the continuous upgrading of the teaching staff. Before their appointment as instructors, the teaching staff receives two months' training, including two weeks at the Vocational Training Development Centre, and the rest at other appropriate centres, as arranged by the Vocational Training Development Centre. Besides, every year the instructors have one week's training at the Vocational. Training Development Centre, in order to be able to keep up with the rapid advances in technology. From time to time, the staff also undergo six months' training at the Institute of Vocational Training to acquire skills in new methodology and technology. Any changes in the programmes of the Centre are subject to the guidance of the Vocational Training Development Centre.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)	Country: THAILAND	EIA No: 35
	No: 3	Date of issue: December 1975

Title: UDORNTHANI PROJECT FOR TEACHER TRAINING FOR RURAL AREAS

The traditional teacher education in Thailand prepares teachers to teach in the formal schools in the urban setting. Since a majority of the people specially in the rural areas are not in school, teachers' role as rural development workers is not realized. Moreover, teaching in schools in the rural areas gets isolated from the immediate environment which is rural.

The Udornthani Project for Training was launched in 1974 to train a new corps of teachers for the rural areas, in recognition of the following problems:

i) New graduates of teacher training institutions often lack the ability to transfer new technology to the schools and the community.

ii) New graduates are reluctant to return to their own villages and teach in the rural areas.

iii) Teachers in service have not developed their role in community development.

iv) Teacher training colleges have no specific goals and working system to relate their programmes with the objectives of community development.

The project operates in the following manner:

i) Selection of students. Student teachers who volunteer to work in rural areas are selected three months before they are assigned to villages and village schools. They are formed in teams, three in each team.

ii) Pre-training of students. The selected students undergo at least 10 days of intensive training. They gather data about and problems of the schools and the communities they have elected to work in. They also listen to lectures, attend workshops and seminars, and prepare their draft plan of work in the villages.

iii) Actual practice teaching in the village. The students do their practice teaching in the village schools at least three months. They also participate in community development work with the people after school hours and during holidays under the supervision of trained teacher educators and school officials. During their training the students work according to the plans they had earlier prepared and approved by the Udornthani Teachers' College. They write reports of their daily activities, prepare lesson plans and conduct seminars with students from other villages. Together with the teacher training college supervisors and district education officers, they evaluate their activities and make further improvements based on their evaluations.

After the three-months training, the students return to their college to complete their training.

Objectives

The purpose of this project is to prepare and train teachers who are expected to become key persons in the development of the rural areas; who understand the needs and problems of the Thai villages and villagers, and who understand their roles as agents in the total development of their country.

Significant features of this project are:

a) The training programme is very well structured and planned. The students are motivated and given pre-training, problems about the community carefully identified, and the whole operation carried out in logical stages.

b) The curriculum for teacher education has been revised to include courses in agriculture, health and nutrition, village arts and crafts, and community development.

c) The practice teaching is no longer focussed only on formal school work but also on doing a whole range of rural development activities to help the people in improving their way of life.

d) The project is constantly evaluated jointly by the student trainees, teacher educators from the college and district education officials.

Contact Person: Director
Udorn Teachers' College
Udornthani
Thailand

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: JAPAN EIA No: 36

No: 5 Dated of issue: December 1975

Title: NAFE* KATO GAKUEN

This primary school was established in 1969 in Shizuoka-ken, Japan, but it started functioning effectively only in 1971. The school began operation with eleven teachers and 75 students.

The underlying educational philosophy of the school is that each individual is unique and that the work and instructional programmes of a school must show the greatest possible respect for his personality.

The school has a Kindergarten Department (3 and 4 years old); an Infant Department (5 to 7 years old); and an Elementary Department (8 to 11 years old, equivalent to 3rd to 6th grades of an ordinary elementary school). The number of teachers and other staff is 48, divided as follows: Kindergarten - 13; Infant - 11; Elementary - 11; Subject teachers - 6; and Clerical staff - 7.

The school follows the same national curriculum as that prescribed by the Ministry of Education for the other Japanese schools. Some of its special features are:

a) The school has a large modern open space building with a lot of intra-building visibility, large, well-furnished classrooms with easily movable partitions, to facilitate easy communication between children and between children and teachers.

b) The school offers individualized, non-graded instructional facilities according to the needs and interests of children.

c) The school uses a good deal of team teaching in its instructional programmes.

d) Because of the individualized nature of instruction, the teachers are given every encouragement to prepare their own teaching aids. Teachers plan their work co-operatively and have to work much harder than in a conventional school.

e) The school has divised its own monthly record for following up achievements in the different subjects and watching the interest of each individual child.

f) The school authorities take an active interest in the in-service training of their teachers and in improving their professional qualifications.

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* NAFE means Nippon Association for Education.

g) English is taught from the age of three because the school believes that certain sounds can be picked up more easily at an early age and also because of the importance given to English for admission to the upper secondary schools and higher institutions.

h) Children of age 5 are not kept in the kindergarten unlike the practice in other cases, since researches at this school have shown that they resemble 6 and 7 year-old children more than the 3 and 4 year-olds.

i) The parents and teachers are in constant touch with one another regarding the progress of their wards. Parent-teacher meetings are a regular feature of the school's work and these are often used for discussing matters of common interest.

j) The school is deeply interested in learning about and from the students and in modifying the content and methods of instruction.

k) The teacher-pupil ratio is very low; only 1:15 as against 1:35 in conventional elementary schools. This makes this school comparatively more expensive than other elementary schools.

Contact Person: The Principal
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1979 Ohoka, Numazu-shi
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Classification: (for the use of receiver)

Country: JAPAN

EIA No: 37

No: 6

Dated of issue: December 1975

Title: HOJO ELEMENTARY SCHOOL

The Hojo Elementary School is a public school which was established in 1873 by the Tateyama City Board of Education, Chiba Prefecture, Japan. It is a special pilot school which uses up-to-date teaching materials, techniques and equipment. It has 41 classes including two special classes and four speech classes. It has a total enrolment of 1,425 pupils.

The staff is composed of 44 persons including clerical personnel.

The school has four buildings with 48 rooms, two science laboratories, two music laboratories, a library, a swimming pool and spacious playground. Other facilities of the school are the following:

a) Equipment for large-group teaching system: closed-circuit television;

b) Equipment for the study of the teaching learning process: response analyzer, observation room with monitor TV, tape recorder, VTR, etc.; and

c) Equipment for self-learning.

As a pilot public elementary school, the Hojo Elementary school aims not only at providing 6 years compulsory primary education but also in applying new methods of teaching and learning. The main features of its programme are:

a) Systematization of teaching plans and materials through the establishment of a Curriculum Management Centre with the following main functions:

   i) To help the teachers to develop teaching plans to be applied in the school;

   ii) To promote exchange of information and ideas among the teachers of various grades through an information-bulletin published twice a week;

   iii) To promote contact between the school and parents by publishing one newsletter for each grade;

iv) To provide the teachers with up-to-date teaching materials; and

v) To assist teachers in team-teaching programmes.

b) Improvement of teaching methods

i) Application of the child-centred method of teaching to the teaching of arithmetic in grade 1. The teacher gives some guidance to the pupils and lets them discover and learn by themselves.

ii) Application of team-teaching in social studies. A close-circuit television is used as a means of teaching the lessons.

iii) Use of new technologies such as TV, headphones, response analyser, etc. in teaching music in grade 5.

iv) Provision of a speech clinic to improve the speech of the pupils with speech defects.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: PAKISTAN EIA No: 38

No: 2 Date of issue: December 1975

Title: USE OF MULTI-MEDIA APPROACH TO EDUCATION: PEOPLE'S OPEN UNIVERSITY

The People's Open University was created in 1974 by Act No. XXXIX of Parliament. It is a specialized educational institution with its principal seat located at Islamabad for purposes of teaching, holding of examinations and tests, establishment of regional centres for guidance and examinations at the post-matric, graduate, post-graduate and research levels.

The People's Open University is a multi-media system of education which provides instruction through correspondence courses designed along the lines of programmed learning, and supported by radio, television, film strips, cassettes, and face-to-face tutorials at study centres, under an integrated learning system.

The University undertakes two types of academic programmes, namely; (i) functional education programmes; and (ii) general (further) education programmes. The functional education programmes are meant for the out-of-school children, youth and adults who have had very little or no formal schooling. The general education programmes cater to the needs of those who have already completed school education such as teachers, technicians, professionals and the educated unemployed to prepare them for greater participation in national development.

The functional education programmes include (i) Literacy, occupational and skill-training; (ii) Vocational education which includes crafts, industry and business; and (iii) Rural education, with emphasis on agricultural modernization. The programme areas under which courses will be offered are (i) Industrial Education; (ii) Agriculture; (ii) Farm Machinery; (iv) Agro-industries; and (v) Social Education.

Under Further Education, courses will be offered in (i) Education, (ii) Agriculture, (iii) Occupational/technical subjects, (iv) Sciences; and (v) Languages.

Operational Objectives

The concept of life-long education is the guiding principle that serves as basis for the operation of the People's Open University. The University was established to provide part-time education through the mass media and modern instructional techniques. It provides educational facilities particularly to people who cannot leave their homes and jobs to undertake full-time study.

Special features

a) The programmes of the People's Open University are principally meant for the masses particularly those in the rural areas, i.e. the teachers and others working for the promotion of rural improvement and community development.

b) The University is fundamentally different from conventional universities and institutions as it breaks away from their many traditions. Some of its characteristic features are: (i) the use of correspondence teaching reinforced by broadcasting and other media; (ii) the clientele is largely composed of out-of-school youth and adults who may continue their occupational work while pursuing their studies; (iii) the programmes of the University cover all parts of the country; (iv) the University has introduced the system of Course Teams who prepare, transmit and evaluate the courses; (v) the courses are spread over weeks and quarters, free of long vacations of any kind; and (vi) the University does not prescribe any rigid entry standards.

c) The programme envisages close co-operation and collaboration with the formal educational system. The colleges and other appropriate institutions are used as study centres for the students.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: SINGAPORE EIA No: 39

No: 2 Date of issue: December 1975

Title: PRODUCTION AND UTILIZATION OF STORIES FOR CHILDREN

Background

The project on the production of stories for children in the primary schools of Singapore was started in 1973. The first series of 20 stories was initiated in July of that year. The stories were written in Chinese by a team of Chinese language teachers who had been specially selected for their interest and experience in story-telling. The visualization of the stories was done by the Media Officers of the Singapore Educational Media Service.

Experienced radio broadcast personnel and teachers recorded the stories. Suitable background music and sounds were mixed into the voice to produce the master tape for bulk duplication of cassette tapes.

The first series of twenty stories have been translated and produced in Malay and Tamil. Presently, the second series of twenty stories in Chinese have been recorded on audio-tapes, and visualization has also been completed. These stories will be made available to schools towards the beginning of the school year 1976. Plans are also underway to produce a series of stories in English to be used in the Chinese, Malay and Tamil schools.

Objectives

This project was undertaken with a view to upgrading the teaching of second languages, especially in the English-medium schools in Singapore, and to improve the language skills of the pupils by exposing them to the correct form of the spoken language and providing them with interesting supplementary reading materials.

Special Features

a) The audio-visual presentation of the stories makes them very interesting and appealing to the children.

b) Before the stories were sent out to schools, short courses were conducted for the teachers who would be utilizing these audio-visual materials. Some 1,200 teachers have already been trained in the use of the materials.

c) The recording of the stories on audio-tapes makes repetitions possible thereby replacing educational broadcast transmission to schools.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: MALAYSIA

EIA No: 40

No: 1

Date of issue: December 1975

Title: PROJECT FOR THE IMPROVEMENT OF SCIENCE AND MATHEMATICS TEACHING IN THE PRIMARY SCHOOLS

Background

Most primary teachers in Malaysia, especially in the rural areas, have poor educational background (ranging from Grades VI-IX) and insufficient training in the methods of teaching science and mathematics. It was felt that possibly one of the main reasons for the poor performance of the fifth grade pupils in these two subjects as shown in recent assessment tests was the poor background of the teachers. With a view to finding a remedy, a special primary science and mathematics project (known as Projek Khas) was launched within the Ministry of Education in 1968.

Project

To implement the project, selected lecturers and teachers from schools were withdrawn from their normal teaching responsibilities and seconded, on a full-time basis, to the Curriculum Development Centre. Their tasks were to prepare guide-sheets for teachers in the Malaysian language using the inquiry approach, and to conduct suitable in-service training courses for teachers in science and mathematics.

The guide-sheets provided the teachers with basic content background in science and mathematics, and information on methodology on the use of the inquiry approach. So far twelve volumes of guide-sheets (one for science and one for mathematics for each of the primary grades) have been published. The preparation of the guide-sheets was followed by an extensive programme of in-service training in their use.

The guide-sheets have been printed and distributed to classrooms all over the country. (Around 7,000 copies have been printed). A quasi-governmental agency has also reprinted the guide-sheets so that these are available to schools needing multiple copies for their teachers.

Projek Khas is a national attempt at upgrading the standard of teaching science and mathematics in the primary schools (Grades I-VI), with special emphasis in the rural areas, using materials developed by local personnel and expertise based on the national syllabuses for science and mathematics.

A unique feature of the project is that it has been developed by teachers and teacher educators who were relieved of their normal teaching functions and devoted their full time to curriculum development. Although the project has now reached the final phase resulting in the publication of twelve volumes of teachers' guides, the implementation phase will continue until the end of 1976. In the meantime, an attempt is being made at developing multi-media self-instructional modules to supplement the teachers' guides and the in-service training courses.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: SINGAPORE

EIA No: 41

No: 3

Dated of issue: December 1975

Title: SCIENCE CURRICULUM INNOVATION WITH EMPHASIS ON LOWER SECONDARY SCHOOL LEVEL

The project relates primarily to the development of a new science curriculum at the lower secondary school level in Singapore. It started in early 1972 and the first cycle materials for the project are nearing completion.

In 1970 Singapore embarked on a full-scale curriculum development programme involving all subject areas. Under the leadership of the Advisory Committee on Curriculum Development, various standing (subject) committees were formed to revise the existing syllabuses and teaching materials. The Ministry of Education/Science Teachers' Association of Singapore (MESTAS) Standing Committee was given the responsibility of overhauling the science curriculum.

A primary science team developed new science syllabuses and teachers' guidelines for all the primary grades, (Grades I to VI). The units for science teaching are based on broad themes. The programme consists of basic units (e.g. exploring science, life and ecology, etc.) and optional topics intended for each school to add "local" colour to its science teaching programme.

At the secondary school level, the MESTAS Standing Committee decided that priority be given to Secondary I and II. Thus, the project was named as the Lower Secondary Science (LSS) Project.

The LSS curriculum development team consists of 20 experienced teachers and teacher-trainers. The team determines the content area and the probable teaching problems. The content is divided into sections, and each team member is given a writing assignment. When an assignment is completed, the leader of the team edits the work, then gives it back to the group for further discussion. In the light of the suggestions obtained, a second edition is produced which forms the first draft. A preface is given at the beginning of each unit, which provides for a teachers' guide, students' worksheets and assignments, etc.

The aim of the project is to update content and methodology in science not only through production of teaching materials but also through teacher training programmes.

Special Features

a) Obsolete materials in General Science, an existing subject compulsory at the Secondary I and II levels, have been discarded and new content more relevant to the student's environment and experience, taking full advantage of his natural curiosity for scientific exploration, have been introduced.

b) Physics and Chemistry at the Secondary III and IV levels have been withdrawn and replaced by Physical Science (which is an integrated subject embracing both Physics and Chemistry). The change allows students an additional subject in the curriculum, thereby providing the opportunity of a broad-based education.

c) To ensure smooth implementation of the LSS programme, a series of teacher re-training programmes have been organized to expose teachers to the LSS materials. The Science Teachers Association of Singapore (STAS), which is developing the LSS programme jointly with the Ministry of Education, has plans for holding workshops to provide teachers a forum for sharing ideas and experiences on the programme. Re-training of teachers will continue until all science teachers have been exposed to the new programme.

d) Filmstrips on some of the special topics already produced are being developed to be used as supportive materials by the LSS teachers.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: Singapore

EIA No: 42

No: 4

Date of issue: December 1975

Title: PRIMARY PILOT PROJECT (PPP)

Background

The Primary Pilot Project of the Ministry of Education, Schools Branch, Singapore was launched in January 1971. The project uses a new curriculum development approach which integrates the teaching of English, Mathematics and Science. These three subjects are deliberately developed in parallel, unit by unit and level by level, with teaching in the language units specially programmed to reinforce and support teaching in the other two subjects. By integrating three subjects together it is hoped that more grounds would be covered in less time in respect of the specific education objectives.

A psychometric evaluation conducted in 1973 by an external evaluation team showed very favourable results of the project.

Operational Objectives

The purpose of the project is to facilitate the teaching of English, Mathematics and Science and to promote the realization of the goals of Singapore as a multi-lingual and a fast-growing, mainly industralized, country.

Special Features

a) Pupils are encouraged to speak more. Reading and writing follow mastery of the oral aspects of language.

b) Games, activities and other learning materials connected with Science and Mathematics, have been designed to feed into "speaking situations" to stimulate children to want to talk about what they see, do, smell, touch or taste.

c) Teaching units for reading/writing have been programmed to mesh in with the oral language units. For each of the first two primary levels, a set of twelve readers have been produced to support the oracy programme. These readers are colour coded into levels of linguistic difficulty which closely match specific linguistic levels in the oracy programme. Each reader has a child-centred theme, carries a complete story, utilizes language items learnt in the oracy programme, and is meant to stimulate a child to read adventurously on his own initiative.

d) The teaching units for Science and Mathematics have been formulated to produce a programme of learning through guided activities. The children work in groups of 6 to 9 observing, manipulating and classifying things in their own environment.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: INDONESIA

EIA No: 43

No: 1

Date of issue: December 1975

Title: PROVINCIAL INTEGRATED PLANNED PILOT PROJECT

Background

A Provincial Integrated Planning Pilot Project was established in early 1970 in West Sumatra, Indonesia.

The first phase of the project, which was carried out in 1970, was devoted to undertaking pre-project activities including fact-finding surveys and manpower training. The actual implementation phase took effect in 1971.

The manpower preparation consisted of a series of training programmes and upgrading courses for a large number of people including school inspectors, lecturers from Teacher Training Institutes (IKIP), staff members of Elementary Teacher Training Schools (SPG), school principals and teachers of primary schools. The IKIP lecturers would, at a later stage of the project, be teaching the upgrading courses themselves to succeeding trainees.

The training programmes were conducted prior to the distribution of educational materials and equipment to the schools as experience has shown that distribution without prior training of the teachers in the use of the materials would result in so much waste of money.

It was considered of particular importance to involve the inspectorate and the staff of the Elementary Teacher Training Schools in the training programmes because these two sectors of the education system could do more than any other group to promote or hinder the improvement of classroom work. Moreover, while upgrading courses may improve the efficiency of the classroom teachers, without an effective follow-up and supervision, much of the effects of upgrading courses may be lost. Hence, the importance of including the school inspectors in the training programmes.

Objectives

The objectives of this broad-based project are: (i) to demonstrate how Jakarta and West Sumatra can co-operate in planning educational development; and (ii) to show how the various agencies and sectors of education in a given province can work together to carry out an integrated scheme leading to a comprehensive and effective system of education.

Special Features:

a) This approach was the first to be tried out in Indonesia. The experiences gained from this pilot project would serve as basis for the development of similar integrated planning projects in the other provinces.

b) The most significant feature of this project is the involvement of all the agencies and sectors of education in one geographic area in the total planning/training exercise. There had been difficulties met at the beginning in establishing effective co-ordination but these have been eventually solved.

c) Another significant feature is the importance given to the training of personnel before the actual implementation of the educational activity. All levels of personnel were given adequate training - the planners themselves, the IKIP lecturers, school inspectors, teacher trainers and classroom teachers.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PAKISTAN

EIA No: 44

No: 3

Date of issue: December 1975

Title: MANAGEMENT OF CURRICULUM REFORMS

Background

Curriculum development in Pakistan is a joint responsibility of the Federal and Provincial Governments. The different curriculum development groups in the provinces and those under the Federal Government form a network and work jointly assisting each other in carrying out curriculum reforms. Staff from schools, universities, teacher training institutions, research institutions and other governmental agencies work throughout the year on part-time basis, designing and testing curricula, training teachers, and producing various kinds and types of instructional materials and teaching aids.

Including the part-time workers, who spend anywhere from a quarter to one-half of their working time on curriculum development work, the total number involved in the project exceeds 500 professionals. On regular full-time basis, Curriculum Centres have about 75 professionals on their staff.

The work on curriculum development initially starts in the provinces. National Committees are organized composed of representatives of the four Provincial Curriculum Centres and the National Bureau of Curricula and Textbooks. The function of the National Committees is to draw up common curricula.

The Provincial Curriculum Centres are assigned special areas to work on. For instance, the Curriculum Centre at Peshawar is responsible for Social Studies; the one at Lahore for Urdu, English, physical education and arts; and the one at Hyderabad for science and mathematics. The Centre at Lahore also specializes in pre-vocational education and micro-testing, the one at Hyderabad, in adult literacy, and the Centre at Quetta, in educational management and teacher training.

Objectives

The objectives of this project are:

1. To develop curricula for primary schools that are suited to the needs of the youth.
2. To develop and apply new techniques in curriculum development.

3. To develop appropriate instructional programme in agriculture, home economics and industry for Grades VI to IX.

4. To produce low-cost textbooks by locally reproducing selected textbooks.

Special Features

Among the features of the project, the following may be mentioned:

a) Planning of primary school curricula

Before the final adoption of any curriculum, pre-installation field tests are conducted after which revision is made as a result of the tests.

b) Micro-testing

A special technique has been developed which involves the preparation of instructional materials to cover the new curricula; training of teachers from selected primary schools chosen on the basis of their location and staffing situation; teaching of the content according to the teachers' guides and with the help of the materials recommended by the curriculum workers; evaluation of students' responses; improvement of the instructional package and methodology; and re-testing on a different groups of students.

c) Instructional programme in agriculture, home economics and industry for Grade VI-IX

Based on the review of trends in other countries, and a survey of socio-economic needs of selected rural and urban areas, curricula for agriculture, home economics and industry have been designed by inter-disciplinary teams and implemented jointly by the curriculum planners and the authorities of Education Department/Ministry.

d) Production of inexpensive textbooks

Without sacrificing the quality of production, selected textbooks are reproduced locally thus cutting down the cost of the textbooks to about one-tenth of the market price of the original books.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: Indonesia

EIA No: 45

No: 2

Date of issue: December 1975

Title: PROJECT IMPACT

Background

Project IMPACT arose out of a search for an economical and effective delivery system for mass primary education. IMPACT is an acronym for Instructional Management by Parents, Community and Teachers.

The project was designed and initiated by the Regional Centre for Educational Innovation and Technology (INNOTECH), one of the educational centres of the Southeast Asian Ministers of Education Organization (SEAMEO) composed of eight Southeast Asian countries.

The rationale behind this project may be summed up as follows:

- Around 70 per cent of the population lives in the rural areas. Approximately one-half of the children in the rural areas do not complete 4-5 years of primary education.
- Educational budgets in most Asian countries are already strained and therefore difficult to expand the existing traditional means of education by building more classrooms and appointing new teachers.

The IMPACT system is an attempt to solve the constraints presented above. The project is now being tried out in Naga, Philippines and in Solo, Central Java, Indonesia. The project is being carried out in Grade IV classes in some selected primary schools.

The main characteristics of the project are:

a. The teacher's traditional role of teaching one class of 40+ pupils has been eliminated. The teacher has become the instructional Supervisor who acts as a manager of instruction providing the needed direction and organization in the use of a variety of learning resources. One Instructional Supervisor manages the instruction of as many as 200 primary pupils.

b. Community members with particular skills (carpentry, homemaking, agriculture, health, religion, etc.) are enlisted to provide specialized instruction. Likewise, older students and primary school graduates are trained by the Instructional Supervisor to conduct specific courses, i.e. beginning reading, on a part-time basis. Some teacher aides assist in the operation of the Community Learning Centre, including record keeping and evaluating pupils' progress.

c. Older students are expected to assist younger students through tutorials and remedial instruction.

d. There are no age limits of pupils in the IMPACT classes. Except for learning reading skills, students need not be encouraged to begin at an early age.

e. Education is modular; each learning module covering the amount of instruction that normally takes one to two weeks. Each module is designed for the learning of specific educational objectives and contains both readiness test and a post-test. Many modules are in the form of individualized instructional packages. Students typically seek tutorial help from assigned older students whenever they experience difficulty. Some learning modules are in the form of small group instruction under the direction of teacher's aides from the community. Others are tied to instructional radio programmes, small group exercises, etc. Printed modular materials are reusable by other students as soon as they are completed by those who progress more rapidly.

f. There are very few set class periods. Students are able to drop out and re-enter at any time.

g. Classes are ungraded; progress is indicated by learning modules satisfactorily completed rather than by grade levels.

Special Features

a. Use of modules for instructional purposes. The modules are individualized.

b. Changing the traditional role of the teacher, from that of a classroom teacher to that of an Instructional Supervisor who manages and directs instruction.

c. Various community resources are mobilized for educational purposes.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: REPUBLIC OF KOREA EIA No: 46

No: 1 Date of issue: December 1975

Title: HIGH SCHOOLS OF THE AIR AND CORRESPONDENCE EDUCATION

Since the creation of the Korean correspondence colleges attached to the Seoul National University in 1972, the need for similar facilities at the high school level has become evident and the task of trying out the modality of a high school of the air and correspondence education was undertaken by the Korean Educational Development Institute (KEDI). During the first phase of the project commencing in March 1974, fourteen high schools were established, 11 in Seoul (of which 3 are for girls) and 3 in Pusan (of which 1 is for girls), with a total enrollment of 6,000 students. As of now, 40 schools have been established throughout Korea with around 20,000 students enrolled, and the system has become a very attractive non-formal education programme in the total Korean educational system.

This project operates with the co-operation of regular high school teachers who are paid extra remuneration for their services in scoring the written assignments of students and in conducting classes. Instruction covers 15 subjects of the normal curriculum of a regular high school.

The students study through semi-programmed textbooks, attend schools every other Sundays (they are attached to regular high schools) to get face-to-face instruction from teachers, and listen to radio broadcasts one hour everyday in the morning and evening.

The main role of KEDI with regard to these high schools is fourfold: (i) provides the instructional plan; (ii) produces instructional materials in the form of special textbooks, which are designed for self-study; (iii) plans and produces radio lessons; and (iv) evaluates, through a universal test given each semester, the performance of students.

The main objective of this project is to provide high school education, through modern educational technology, for workers, school dropouts and other out-of-school youth and adults who wish to continue their education.

Though the programmes are primarily meant for the under-privileged, usually the school drop-out who are either working or self-employed, they are also serving a much larger age-group including adults in 30-40 age group. Correspondent student bears his own expenses - cost of textbooks and tuition fee, but the tuition changes are about one third of regular high school changes.

Through "block release" or "study leave" arrangements, industry could use the opportunity for further education of its workers.

Significant progress has also been made in the production of special self-study-oriented textbooks.

Source: "Final Report of National Inventory of Educational Innovation", Korean Educational Development Institute, Seoul, Republic of Korea.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
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Country: REPUBLIC OF KOREA EIA No: 47

No: 2 Date of issue: December 1975

Title: THE ELEMENTARY-MIDDLE SCHOOL DEVELOPMENT PROJECT (EM PROJECT)

Background

Korean education is confronted with a host of problems which arise from: rapid increase in enrollment in the primary and middle schools accompanying population growth coupled with the elimination of the middle school entrance examination; inadequacy of the conventional modes of instruction and learning; wide variations in educational quality; and the lack of relevancy to reality in the curriculum.

The urgency to cope with these increasingly complex problems clearly indicated the need for an institute which is exclusively concerned with consistent and intensive research and development tasks in Korean education.

Pursuant to the Korean government's request, a survey team from Florida State University conducted a systems analysis of Korean education, and came up with a recommendation for developing an alternative system for primary and middle schools.

This recommendation was subsequently followed by the granting of a development loan in the amount of $7,500,000 earmarked for the establishment of KEDI which would undertake the educational research and development project. The project also includes the demonstration and diffusion of the new educational system.

The proposal for the loan was passed by the National Assembly on July 31, 1972, and the Minister of Education and KEDI Board of Directors formally approved the establishment of KEDI on August 30, 1972.

The EM project was the direct motive for the establishment of KEDI. This project has been scheduled for intensive implementation from 1973 through 1977. The year of 1975, the third one since the launching of the project, will see the most vigorous activities in the development of instructional and management systems, instructional materials, and educational broadcasting systems.

The project is designed to introduce a more efficient and higher quality educational programme into elementary and middle schools in Korea.

The educational development project is of such a magnitude as to require intensive, systematic efforts, cutting across all facets of education. Therefore, efforts are continuously being made to reflect the field experiences of teachers as well as the expertise of professionals.

Objectives

Intrinsic Goals of the EM Project

The intrinsic goals describe the experiences pupils should be having when the new educational procedures have been developed to their maximum effectiveness. Therefore, these goals will serve both as the criterion in a field testing, revising, and other development activities. Six intrinsic goals of the EM Project have been identified:

i) Individual students are provided with more learning experiences with special emphasis on the development of higher mental processes such as problem solving, critical thinking, and creative production.

ii) Individual students are provided with more learning experiences for better internalization and acquisition of values and attitudes, productive akills and knowledge that are uniquely needed for national development.

iii) Learning progress of individual students are periodically monitored, and the results are to be fedback into the teaching-learning processes.

iv) Individual students have more opportunities for self-directed learning.

v) A variety of learning resources through supplementary instructional materials and media are available for mastery of major instructional objectives.

vi) Individual students have access to a variety of learning resources and measures such as supplementary and enrichment programmes, and flexible classroom organization adapted for individual differences in the learning rate.

Having identified these intrinsic goals does not necessarily mean that they remain entirely static. Experiences and insights gained in the process of programme development may lead to some modification in the statement of certain goals or to the identification of some important new goals.

Pay-Off Goals

Pay-off goals are, in the context of the EM Project, long-term effects or outcomes of the new educational system when it is fully implemented in the schools nationally. They also provide ultimate criteria by which the system designs and their effectiveness are evaluated. Five pay-off goals have been identified:

i) High achievement tendency (a significant increase in the student mastery rate) is observed among students.

ii) Higher cost-effectiveness is attained.

iii) Regional gaps in the quality of education and school differences are decreased.

iv) Educational opportunities are expanded for more children and adolescents.

v) The sense of accountability and credibility of the general public in relation to school education is enhanced.

Scope of the project

A. Development of a New Educational System and Its Demonstration

The first five-year project, which is to develop a new educational system for the primary and middle schools, is markedly different from the conventional, patch-work type of reform programmes witnessed in the past in the sense that the former is characteristic of a full circle of more intensive research-development-demonstration activities. Such an intensive and consistent effort in educational reform is more likely to lead to the development of a more viable and dynamic educational system. In this sense, the project is an integrated and concerted effort to mobilize every available resource for developing a new and better educational system.

B. Development and Partial Demonstration of an Instructional System Model for the Primary and Middle Schools (1973-1975):

In order to explore a viable solution mechanism for such problems as low level student achievement and financial constraints, efforts are being made to develop a new instructional system that would provide a higher quality of education at a lower cost. To illustrate this, studies were made in depth of the important variables influencing the instructional system such as instructional process, media learning experiences, student grouping, and staffing structure. The studies defined positive and negative sides of the existing instructional system, thus yielding valuable input for its improvement. The appropriate learning pattern and instructional principles that would enhance learning outcomes were identified, and the multiple learning instructional materials developed. The new model developed through this procedure will be applied to actual classroom situations and continuously evaluated in terms of its effectiveness.

Demonstrations of the new model were scheduled as follows:

The first demonstration: Two subject matters of 3rd and 5th grades each (1973)

The second demonstration: Three subject matters of 2nd grade (1973)

The third demonstration: All subject matters of 3rd grade (1974)

The fourth demonstration: All subject matters of 3rd and 5th grades (1975)

C. Development of the School Management System Model and Its Demonstration

Effort is being made to develop a school management system model that will maximize administrative efficiency and learning outcomes to be integrated with the new instructional system to form a general educational system. Studies are conducted on the facilities, financial status, organizational structure, and supervision-practices in order to (a) identify the inefficiency and drawbacks of the existing management system and develop alternatives to it, and (b) to develop an effective school management system model that is workable in an indigenous setting.

The new model will be applied to actual classroom situation, evaluated in terms of its effectiveness, and continuously modified in preparation for the final application on a much larger scale.

D. Evaluation of the Educational System

The effectiveness of the new educational system will be carefully evaluated through a feedback mechanism. The evaluated results will become valuable data in efforts to improve the system. Comprehensive studies on the validity, cost-effectiveness, and direct and indirect outcomes of the new system will be conducted to (a) develop an evaluation model to verify its effectivesness resulting from the new model, and (c) develop an evaluation system that will effectively help the researchers in their evaluation system that will effectively help the researchers in their evaluation activities.

E. Comprehensive Demonstration and Evaluation

The new educational system is tried out in the first instance in 45 primary and middle schools which have been selected for demonstration purposes. These schools take a leading role in the educational reform programme. Included in the demonstration are the instructional system, management system, media and instructional/learning materials that will continuously be modified and refined to be available for nationwide application in the primary and middle school after 1978. The demonstrations of new models have been scheduled as follows:

The first demonstration: 15 schools involved; all subject matters of 3rd and 5th grades (Sept. 1975-Feb. 1976)

The second demonstration: 30 schools involved; all subject matters of 1st through 6th grades (March 1976-Feb. 1977).

The third demonstration: 45 schools involved; all subject matters of 1st through 6th grades and six subject matters of 7th through 10th grades (March 1977-Feb. 1978).

G. Studies on Curriculum and Development of Instructional Materials

The contents to be included in the new educational system become the curriculum which specifies instructional goals and content structure. The question, "what should be taught?" can be equated with a philosophical question, "what type of person should be produced?" Hence, it is essential that the curriculum reflect the educational ideals and demands of the society.

However, it has been noticed that the existing curriculum prepared within the framework set by the Government, is so vague as to cause confusion in interpreting educational goals.

In co-ordination with the Textbook Compilation Bureau of the Ministry of Education, the entire curriculum of the primary-middle schools will be specified in terms of goals, content structure, instructional design, and supporting materials, followed by the testing of their effectiveness. Parallel with this, reference materials will be developed which facilitate compilation of test books.

Multi-instructional materials, including teacher's guides, work-books, TV/radio programmes, and evaluation materials will be developed and tested to verify their effectiveness. Development of these materials has been scheduled as follows:

The first development:	All subject matters of the 3rd and 5th grades (1974)
The second development:	All subject matters of the 1st, 2nd, 4th and 6th grades (1975)
The third development:	Six subject matters of the 7th through 9th grades.

H. Basic studies on curriculum

Basic studies on curriculum applying advanced theories of learning, curriculum, and evaluation, are being conducted. Included in these studies are the problems related to curriculum integrity. latent curriculum education objectives, knowledge structure, and so on. The outcome of these studies will be reflected in developing the new instructional system and its materials.

K. Studies on the diffusion process (1973-1977)

Studies on the process of diffusing educational innovations are being conducted to develop an effective mechanism for diffusing the innovative programmes to the schools.

Included in these studies are the case studies of the educational reform efforts within and without accompanied by information services to the schools, the educational reform process covering initiation, diffusion, and institutionalization of reformed programmes, and the factors that hinder or facilitate the educational reforms. The outcome of these studies will be the basic strategy for the nationwide diffusion of the reformed system after 1978.

Implementation (September 1972 through June 1975)

Designing A New Instructional Model

The designing of a new instructional system model is the first step in a series of system development studies. The newly developed instructional model is unique in that it takes account of individual differences in students with emphasis on individualized guidance. In the new model, the instructional process was divided into five parts; planning-diagnosis-guidance-development-evaluations. Its first, second, third and fourth tryouts in the field provided satisfactory results.

The first tryout

Period: May 28 through June 23, 1973

Schools involved: 4 classes at Kesung Primary School, Seoul

3 classes at Susong Primary School, Seoul

Grade: 3rd and 5th

Subject matters involved: Mathematics and Natural sciences

The second tryout

Period: November 5 through December, 1973

Schools involved: 10 classes at Hwage Primary School, Seoul

4 classes at Dongbuk Primary School, Seoul

7 classes at Buhung Primary School, Seoul

Grade: 2nd

Subject matters involved: Moral education, Mathematics, and Korean language

The third tryout

Period: October - November 1974

Schools involved: 7 classes at Hanam Primary School, Seoul

4 classes at Onju Primary School, Seoul

Grade: 3rd

Subject Matters involved: all eight subject matters

The fourth tryout

Period: May 5 through 28 June, 1975

Schools involved: 4 classes at Hanam Primary School, Seoul

8 classes at Shu Primary School, Ahnyang

Grade: 5th

Subject matters involved: all nine subject matters

Consistent findings from these tryouts are: (i) students' average achievement level is very much higher under new system; (ii) practical difficulties were identified which the teachers had to face in giving remedial, supplementary and enrichment instruction at the end of the diagnosis and formative tests; (iii) contents included in materials such as TI, and Worksbook tended to be too heavy for the given time.

Selection of Demonstration Schools (March 1974)

As a preliminary step toward the nationwide, comprehensive tryout of the new educational system scheduled for September 1975, 60 schools were tentatively selected as follows:

Schools	Major cities	Small cities	Rural areas	Remote areas	Total
Primary	6	11	22	3	42
Middle	3	5	9	1	18
Total	9	16	31	4	60

Study on the Managerial Practices of the Demonstration School (May - August 1974)

A study was made of the managerial practices in the demonstration schools to gain some insight into and provide suggestions for developing a new school management system. At the same time, this study investigates these schools in terms of their appropriateness for tryout. A report on the managerial practices of these schools was published.

Specification of the Elementary School Curriculum (January - December 1973)

As a preliminary step toward specifying the primary school curriculum KEDI developed a framework serving as a guideline for specifying the curriculum. Developed were objectives tables, content tables, specification tables, unit guide plans, and textbook analysis tables. This study involved curriculum specialists, subject matter specialists, and teachers.

Experimental Study on the Revised Textbooks (February, 1973-February 1974)

The new textbooks, revised during the period from 1972 to 1973, were put into use in the field to identify problems and to consider measures for improving instructional guides. Based on the identified problems, modification and supplements were made. All subject matters of the 4th, 5th, and 6th grades were tried out in the

30 schools sampled vis-a-vis a careful analysis of the instructional process.

Specification of the Middle School Curriculum (January-September, 1974)

This study covered mathematics, natural science and English language in the middle schools. The methods adopted in the study were the same as those for the primary schools.

The Types of Instructional Materials for the New Instructional System

The new instructional system requires active participation by the students and utilization of a variety of instructional materials catering to individual needs.

Therefore, the first task was to determine the types of the instructional materials which should be used in the new educational system. To meet these instructional characteristics, the following materials have been determined for development:

Instructional guides

Workbooks

Broadcasting media: ITV and IR programmes

Evaluation materials: Diagnostic, formative and Summative evaluation

Instructional media: Audio-visual

Key features of the project

The EM Project is not just another kind of experiment to be tested for its effectiveness. This, of course, does not imply that the EM Project is not be tested rigorously for its effectiveness and validity.

The point is that the EM Project is essentially an implementation programme of planned reform and that its effectiveness and validity ought to be improved continuously through formative evaluation and quality control.

The EM Project should be viewed as part of a national educational reform programme, where the total systems approach is applied. Expertise from various professional fields ranging from educational philosophy to instructional science and technology should be bonded appropriately. Interdisciplinary exchange of views and knowledge is also an essential process from inception to development and evaluation of the EM Project, since educational reform is an integral part of the total social reform programmes.

Source: "Final Report of National Inventory of Educational Innovation", Korean Educational Development Institute, Seoul, Korea.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: REPUBLIC OF KOREA EIA No: 48

No: 3 Date of issue: December 1975

Title: SINAHN COUNTY BROADCASTING SYSTEM

Background

The county of Sinahn consists of 773 islands, and the schools in the habited islands are widely scattered. The geographical feature poses many educational problems; the limited opportunity for the learning experiences of social and cultural nature; the low quality of the teachers; and the difficulty of providing supervisory guides and administrative supports.

The broadcasting programme was initiated as an experimental project under Educational Law (Article 191), Broadcasting Law (Article 2-4) and Electronic Wave Control Law (Article 11).

Objectives

The broadcasting programme is intended to facilitate educational development of Sinahn Country. More specifically, the objectives are:

1. To maximize the outcomes of instruction/learning activities through the utilization of technological means.
2. To provide up-to-date information on educational innovations and to help the teachers improve their professional competencies.
3. To help the administrators and supervisors establish relevant policies and guides, thus effecting administrative supports to the schools.
4. To expand the opportunity for social education designed for the out-of-school youth and adults.

Scope

The services provided by the project to the country school systems cover 116 primary and middle schools with over 44,000 pupils and 1083 teaching and other educational personnel.

Implementation

The educational broadcasting, commencing with the learning programmes for students, has been expanded to include in-service teacher training, administrative supports, and general programmes for the regional community.

Broadcasting for learning programme

Broadcasting for learning programmes serves the purpose of facilitating the attainment of instructional objectives by providing relevant learning experiences and enriching the curriculum. The broadcast programmes include the following:

1. Introduction to the broadcast programme
2. Moral education
3. National language
4. Social studies
5. National history
6. Music
7. Science - story oriented
8. English
9. Children's hours

In-service teacher training

This programme is to facilitate self-learning by the teachers, intended to improve their professional competencies by providing updated information on the learning theory, teaching methods and innovative efforts. The broadcast programmes include the following:

1. Professional course
2. Generan studies course
3. Consultation

Programme for Administrators

Broadcasting is being used to simplifying and expedite the process of administrative action. It provides information on the administrative activities, educational events and the day's broadcasting programme.

General programme for regional community

This programme concerns social education for the out-of-school youth and adults - particularly in outlying areas. It represents an attempt to combine the social functions of education with the educational functions of society, thus developing industry, mutual assistance and co-operative attitudes, which are essential to the development of regional community. The broadcast programme consists of the following:

i) New community education

ii) Increasing incomes.

iii) Improving quality of life

iv) General studies course

Management

The educational broadcasting centre is under the direct supervision of the Chief, Sinahn District Office Office of Education. As an advisory group, there is Broadcasting Deliberation Committee. The Broadcasting centre has three divisions - technical support, planning and programming,and general services.

Key Features

In recent years, the educational effects of broadcasting media have received growing support for their potential contribution to increasing the learning outcomes. The strength of broadcasting media is usually manifested in forms of comprehensiveness, spontaneity, suggestiveness and productivity, thus posing significant implications for education. Specifically, it serves the purpose of enriching the learning experiences and enlarging the educational opportunities for a large audience.

Its importance is further heightened by the geographical feature of the Sinahn County: apparently, it augurs well not only for school education but for adult education in the socially and culturally deprived district.

Source: "Final Report of National Inventory of Educational Innovation" Korean Educational Development Institute, Seoul, Korea.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: Thailand

EIA No: 49

No: 4

Date of issue: December 1975

Title: AGRICULTURAL DEVELOPMENT IN RURAL AREAS

Background

The project was initiated by the Surin Agricultural College. It arose out of a recognition of the need for an agricultural college to play an active role in promoting agricultural development in its service area and for the students in the college to have direct experience of the real problems of farmers in the rural areas.

Objectives

The project was designed with the following objectives in view:

a. To promote the participation of the College in raising agricultural development in the rural areas and in helping the rural people to raise their standard of living.

b. To enable agricultural students to have practical experiences in rural communities and to acquire first hand experiences of their real problems.

Implementation

The project work started with students and instructors making careful survey of the rural areas and their agricultural needs. Thereafter meetings were held with village committees to orient the rural communities to the project objectives.

180 students of the college are actively involved in carrying out project activities. 12 villages have been selected for participatory activities and each village is served by a group of 15 students with college instructors supervising and guiding them. The project is carried out under the overall supervision of the Director of Surin Agricultural College and involves the instructors of the college and students.

Source: "National Inventory of Educational Innovation", Educational Planning Division, Ministry of Education, Bangkok, (1975)

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: for the use of receiver)

Country: Thailand

EIA No: 50

No: 5

Date of issue : December 1975

Title: INSTITUTE FOR THE PROMOTION OF TEACHING SCIENCE AND TECHNOLOGY

Background

The Institute was established in 1970 by the Government of Thailand with assistance from United Nations Development Programme and Unesco. Its mandate is to develop Science and Mathematics curriculum at the school level, promote new teaching and learning methods in science and mathematics in Thai schools and provide training services to teachers in cooperation with the teacher training institutes and the Ministry of Education.

The Institute started its work at the upper secondary stage and then gradually extended it to lower secondary stage. The curricula and materials development by the Institute are first tried out in 20-30 schools in Bangkok and neighbouring provinces. An experimental-developmental phase of about 3 years is envisaged before the new curricula are to be applied to schools all over the Kingdom.

Implementation

After the preliminary work of recruiting personnel and organizing administrative services had been completed, subject committees were formed for each subject area. Each committee consists of teachers, supervisors, instructors from teachers Colleges, and specialists from the universities. The work of each subject committee was backed up by appropriate academic services, such as Tests and Measurement, Equipment Design and Construction etc. Particularly attention was given to close coordination among various subject committees. The subject committee followed generally the same pattern of work:

- Determination of general and behavioural objectives
- Lay out of new curriculum
- Identification of methods of teaching and evaluation
- Preparation of draft textbooks and teachers' guides
- Review and revision of draft textbooks and teacher's guides
- Minitrial of lessons with students and collection of data
- Revision of textbooks and teachers' guides
- In-Service training of teachers in experimental schools to understand the new curriculum, methods of teaching and evaluation.
- Further revision of textbooks and teachers' guides in the light of data collected in experimental teaching.

The timing of curriculum development has been scheduled as follows:

	Experiment	Application to all school
1. Science, upper secondary	1973	1976
2. Science, lower secondary	1974	1976
3. Mathematics, upper secondary	1974	1977
4. Mathematics, lower secondary	1975	1978
5. Mathematics, upper elementary	1975	1978
6. Mathematics, lower elementary	1974	1977

The preparation of text-books, teachers' guides and teaching materials to be used in experimental schools have mostly been done and the rest are underway. The following check list may provide a clearer picture:

Science		Finished	Underway
Upper Secondary			
Physics		X	-
Chemistry		X	-
Biology		X	-
Physical Science		-	X
Lower Secondary			
General Science	M.S.1	X	-
	M.S.2	X	-
	M.S.3	-	X
Mathematics			
Upper Secondary	M.S.4	X	-
	M.S.5	X	-
Lower Secondary	M.S.1	X	-
	M.S.2	-	X
	M.S.3	-	X
Upper Elementary	P.5	X	-
	P.6	-	X
Lower Elementary	P.1	X	-
	P.2	X	-
	P.3	-	X
	P.4	-	X

The in-service training of teachers at upper secondary level will be carried out by the Institute directly. For the training of teachers in the lower secondary classes, it is planned to provide in-service programmes in 10 Teachers Colleges in the provinces and 3 in Bangkok. Along with in-service training, the Institute is working closely with teachers colleges and Faculties of Education of the Universities for reorganization pre-service training of science teachers.

Source : "National Inventory of Educational Innovation", Educational Planning Division, Ministry of Education, Bangkok, (1975)

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: CHINA

EIA No: 51

No: 1

Date of issue: January 1976

Title: AGRICULTURAL COLLEGES IN RURAL AREAS

by
Tung Yi

What would be the best way to carry out the revolution in education in China's agricultural colleges? A number of colleges have already had some experience in tackling this problem. One of them, the Northwest Agricultural College, has adopted the method of setting up in the countryside an experimental 'teaching centre', in which training is carried out in the course of running three types of farms (the high-yield, the experimental and the seed farms) in co-operation with a local production brigade.

Late in 1971, in line with Chairman Mao's teaching that it is essential to revolutionize education, the Northwest Agricultural College set up specialized courses in crop raising in the countryside in southern Shensi province. It began to enrol worker-peasant-soldier students from various countries in that area the following spring.

The college made a contract with a local production brigade to run the three farms, with the required labour power, fertilizer and seed to be supplied mainly by the brigade. According to a teaching plan jointly worked out by the college and the brigade, teachers and students teach, learn and do scientific research in the course of working the farms, and the leading group formed by peasants, teachers and students has charge. This enables teachers and students to step out of the schoolroom to integrate themselves with the peasants and to gain experience in working out a new system combining schooling, productive labour and scientific research.

Before the great proletarian cultural revolution, the Northwest Agricultural College kept its students inside, teaching farming by the blackboard and how to achieve high yields out of books. As a consequence, schooling became divorced from proletarian politics, from the worker-peasant masses, and from practical production. Such methods could not train students to be labourers with both socialist consciousness and culture.

The new method of running three types of farms has proved fairly effective in healing the breach between the agricultural colleges and proletarian politics, the worker-peasant masses and practical production, and has helped in revolutionizing education in these colleges.

By this method, teaching is combined with running the farms, a course in the essentials of crop production with one in the cultivation of a specific crop, all properly worked out and given in co-ordination. In view of the systematic character of the course, arrangements are made for the students to learn the essentials of crop production for the best part of the time during the slack farming season and for less time during the busy season. For instance, crop production study goes on during the nursing of rice seedlings, though at this time the special course in rice cultivation is given major attention. This is a change from the past situation in which the course in the essentials of crop production was divorced from the course in the cultivation of some specific crop; theory was divorced from practice; and the fundamental course was divorced from any specialized line of cultivation and took no account of actual production.

Important as it is because of its practicality, the running of three types of farms is not the whole of the schooling. Importance is attached to raising the theoretical level of the students on the basis of practice. The teaching of theory is closely integrated with practical activity in order to facilitate improvement of the students' theoretical knowledge. In the teaching of plant physiology while running the three types of farms, photosynthesis is explained in connexion with close planting; metabolic activity, with the change of colour on leaves; the part played by the root system in achieving high yields, with the growing conditions of the root system. In a word, perceptual knowledge is raised to the level of theory and at the same time the theoretical knowledge acquired is promptly checked on and applied in productive practice so that the knowledge acquired is at once more profound and practical.

The running of the three types of farms, while playing a role in the transformation of teaching methods, also serves to promote scientific research and agricultural production. In 1972, teachers and students of the college worked one hectare with two production teams while conducting thirteen experimental projects. The next year they worked 2.6 hectares on the co-operative farms while conducting thirty experimental projects. Between them they wrote seventeen scientific treatises and reports in all. The contents of most of the papers have been applied in farm production.

Furthermore, after two years of experimentation, the teachers and students have worked out methods and techniques to carry out double-cropping of paddy rice in Hangchung, providing a scientific basis for enlarging the double-cropping area and raising output in this region. On the other hand, the two production teams themselves benefited from participating in running the three types of farms and were enabled to practise scientific farming. As a result, they harvested 43 and 24 per cent more per hectare respectively in 1973 than in 1971 and changed from backward to advanced units.

An agricultural college run in the countryside enables the students to receive re-education by former poor and lower-middle peasants and to get tempered in the course of the three great revolutionary movements of class struggle, struggle for production and scientific experiment. This also helps them foster the notions of learning from, cherishing and serving the peasants.

The Northwest Agricultural College students, by combining theory with practice in the course of struggle for production, have not only grasped the basic theory connected with their specialized courses but also developed their ability to analyse and deal with problems. Last year, a large area of newly transplanted rice seedlings owned by a production team showed stunted growth, to the great concern of the peasants. To deal with this disease, teachers and students together with experienced peasants applied their theoretical knowledge and made a comprehensive investigation and study of the problem. They finally found the cause of the plant disease and were able to take prompt measures to save the crop. This was followed by careful management. As a result the production team harvested 34 per cent more grain that year than in the preceding year.

On the basis of their success in saving the stunted crop, the teachers and students wrote six investigation reports and articles and held a scientific discussion meeting attended by the entire student body.

A college run in the countryside means that former poor and lower-middle peasants can take a direct part in the revolution in education. At the Northwest Agricultural College, apart from the peasants who joined the leading group in running the three types of farms, eight others have been engaged as part-time or full-time teachers.

The college's teaching centre has in the past two years run sixty-two short-term courses in different subjects and in co-operation with the authorities of an administrative region, a county and a people's commune has trained thousands of agro-technicians. Jointly with near-by production teams, it runs a one-year night school and also carries on other forms of teaching and scientific and research activities. All this has served to train a large number of technical personnel, improve the teaching quality and promote the revolution in education.

To run schools on an open-door principle is a new thing born of the cultural revolution. The running of agricultural colleges in the countryside has been achieved step by step.

The Northwest Agricultural College's experience in running the school on an open-door principle shows that the orientation of running agricultural colleges in the countryside is correct. The teachers and students, however, are of the opinion that they have made no more than a beginning in the transformation of teaching content, methods and curriculum. Much remains to be done, they feel, to achieve steady progress through practical work.

Source: Reprinted, with permission, from "PROSPECTS, quarterly review of education", UNESCO, Vol. V, No. 4, 1975

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: CHINA
EIA No: 52
No: 2
Date of issue: January 1976

Title: COMBINING THEORY WITH PRACTICE

by
Souen Houa

At the end of the semester the pupils at the Sintien production brigade school in the Province of Hopei in north China were beginning their examinations. When the teacher had announced the subject for the test for the elementary industrial grade-VII class, the pupils almost all left the classroom instead of shutting themselves up in it as is usually done for examinations.

The task set was to make a diagram of the electrical circuits in a school, marking in the position of lights and switches and observing the following principle: economy of electricity and wiring while maintaining adequate safety standards. The pupils were allowed to discuss the task, to consult books and even to ask the teacher questions.

The pupils left their classroom to go out and investigate. They all realized that it would be impossible to write a good answer if they relied solely on book information. Some of them, therefore, cycled over to neighbouring villages which had electrical installations so that they could study them on the spot. As for the teacher, he too was making an investigation by bicycle. He had never installed an electric light in his life and had never come across such an examination question. He sketched out a circuit diagram himself and went to several villages to study the best form of installation.

It was through these investigations and their study in depth that the pupils mastered a real understanding of the subject. Those who knew only how to plough through books behind closed doors, cut off from practical reality, did not fare well. This was illustrated by the case of Wang Chou-tan, who had previously been thought the best pupil in the class. This time, he got a poor mark through neglecting the installation's safety aspects. This new kind of examination brought home to the pupils that the precise goal of their studies was service of the people and that, in order to achieve that goal, theory and practice must go hand in hand.

A representative of the poor and semi-poor peasants who participate in the running of this school spoke as follows during a meeting held in Pekin on the interchange of experience in the field of teaching acquired through the revolution:

> Our teachers had differing opinions concerning the reform of the examination system. Some feared that an examination in which it is permissible to consult textbooks will not give an exact indication of the pupil's level and that the pupils will become slack in their studying. But the facts are there--convincing facts which should banish their fears.

He went on:

> In the past, examination questions were devised by the teacher alone, who kept them absolutely secret. Now it is completely different; they are discussed by the pupils and teachers together and then formulated by the latter, together with the representatives of the poor and semi-poor peasants. The choice of questions should be made in accordance with the following principles: they should help in transforming the pupils' ideology, in increasing their capacity to analyse and resolve problems and in taking up and resolving problems that have arisen during teaching and study.
>
> For the fourth-year Chinese language test, for example, the subject chosen after discussion was this: 'Describe a meritorious action you have done'. The paper had to be handed in to the teacher within five days. The pupils left the classroom and went off to see what they could do, one to carry water with a shoulder yoke, another to sweep courtyards for the poor and semi-poor peasants, etc. This new system of examination helps develop the pupils' spirit of public service and also gives them practice in composition.
>
> This school has also set up a small farm and cultivated a small wood in order to combine education with productive work.

How should children be familiarized with this new style of study, the linking of theory with practice in order to associate education with the three great revolutionary motive forces--the class struggle, the drive towards productivity and scientific experimentation? This is an important question for the teaching revolution in China.

What is vital is to place education at the service of the proletarian movement and to produce educated workers with a socialist conscience. The experiments carried out by the Sintien production brigade are not unique: thousands upon thousands of urban and rural schools are undertaking similar experiments throughout the country.

Putting the teaching revolution into practice in recent years, universities which teach the humanities have used society as their workshop: the students often go out among workmen, peasants and soldiers in order to learn from them and combine their studies with the three great revolutionary drives. In the polytechnic colleges a new system has gradually been introduced, bringing together education, scientific research and production in a single whole. Some 67 polytechnic institutes or universities have established contacts with 2,825 factories, mines and peoples' communes. The students are willing to learn with humility from the workmen and peasants and conscientiously transform their conception of the world. They are combining education with scientific experimentation, at the same time undertaking certain special production tasks. By linking up theory and practice and by forming a single whole with the workers and peasants, our teachers and students are making their contribution to the revolution and to socialist construction.

In 1974, worker-peasant-soldier graduates from Tsinghoua University, in collaboration with 100 factories and scientific research units throughout the country, carried out 360 projects as end-of-study practical work and achieved better results than any intake of students of the former, pre-cultural revolution university had ever been able to obtain. Altogether 289 of those projects have already been applied in the construction of socialism, including a hundred or so which have made an impact in leading production or management sectors or have filled gaps in Chinese science and technology.

Factories managed by polytechnic institutes or pupils can combine production, education and scientific research. Numerous commodities have been produced in them. The electronic instrument factory controlled by the University of Pekin, working in co-operation with interested institutions, has developed an electronic integrated-circuit computer capable of 1 million operations per second. As a result of practice, the professors of the university's computer department were able to grasp the principle of third-generation computers and to understand all the problems which arose during construction. Taking stock of the experience gained, they have compiled a textbook, The Principles of Electronic Computers, and other teaching manuals. As for the students, they assimilated the theoretical knowledge acquired in class better by operating the machine. Before the great proletarian cultural revolution, students of this department were able to study data processing only from books, far removed from all practical experience.

Source: Reprinted, with permission, from PROSPECTS, quarterly review of education", UNESCO, Vol. V, No. 4, 1975

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: CHINA

EIA No: 53

No: 3

Date of issue: January 1976

Title: VISIT TO A VILLAGE MIDDLE SCHOOL ON PEKING OUTSKIRTS

by
Fang Hsueh

A strange-looking lamp is being used these days in the patchwork of vegetable fields that stretch over big areas of the southwestern outskirts of Peking. Consisting of a vertical tube and three petal-like metal tabs, the lamp emits ultraviolet rays to attract all kinds of winged insects at night. The insects die on coming into contact with the high-voltage electrified wire screen in the lamp. The lamp, which destroys some 5 kilogrammes of insects per night, was invented by the teachers and students of Yuehkochuang village middle school. It is one of its achievements made in the revolution in education.

The insect lamp is now produced in large numbers in a factory run by the school which is located in an area primarily given over to vegetable farming. It is a boon to farming because it destroys dozens of kinds of insects which are a serious pest in the growing season.

Physics teacher Wang Chi-fan said that many improvements had been made on the insect lamp. When it was found that the electrified wire screen was a hazard, the teachers and students made a device to cut off the current automatically at the approach of people and animals. Another automatic device turns off the lamp at dawn, when it rains or when the wind blows. This saves the peasants the trouble of going to the fields to shut off the lamp. Teachers and students of the school have also made a transistorized insect exterminator for use in mountainous districts which do not yet have electric power. They were praised by local peasants for serving agriculture wholeheartedly.

As one of the men in charge said:

> At first, our school was not clear about serving agriculture. Influenced by the revisionist line in education, our school, though located in the countryside, showed no interest in farming. Teaching then was divorced from proletarian politics as well as from practice and productive labour.

During the cultural revolution, in line with Chairman Mao's formulation that 'education must serve proletarian politics and be combined with productive labour', the school started to train students to become workers with both socialist consciousness and culture to meet the needs of the countryside.

In 1974, the Lukouchiao commune, in which the school is located, worked out a ten-year programme which calls for replanning the layout of the land, and construction of roads and new villages. The Yuehkochuang village middle school has since linked its teaching with this plan. It has helped the production teams survey the land gradients, worked out the amount of earth to be excavated and the manpower required. After the surveys, the students mapped the area and handed the drawings to the production teams to help them in the construction work planned for the coming years.

Groups of students from the school recently tramped the fields again, carrying telescope levels they had made themselves. This time they were on a new assignment: to map out underground pipelines and locations for pumps and spraying nozzles in a sprinkling system envisaged in the commune's ten-year programme and designed to replace existing irrigation ditches.

The students applied the mathematics and physics they had learned. In making each nozzle head spray over a circular area with a minimum waste of water, the second-year senior students used the parabola, calculated the speed of flow from the water volume and made use of their knowledge of geometry. One of the mathematics teachers commented:

> Formerly, we taught, but did not put into practice what was taught. The students were bored with our teaching based on memorizing formulae. Today, they apply what is learned, and with their own hands put into practice what we teach them. No wonder the students have developed a zest for learning.

While teaching the students basic theories, the school also teaches them something not found in books: the practical needs of the countryside. For instance, students learn accountancy by taking part in account-clearing in the commune production teams. Lessons on soil analysis are also taught. In 1974, the students were divided into groups to go to thirty-four production teams where they tested the soil for acid, alkaline, moisture and other contents. The findings which the students kept on file proved very useful to the production teams in improving soil and applying water and fertilizer rationally. In all, the school trained some sixty soil analysts for the production teams.

Many classes are held in the fields, in tractor stations and in the commune-run mechanical repair shops. This helps integrate theory with practice and train personnel for the needs of the rural districts. For example, the lessons on tractors for senior students are given in the commune-run tractor station. The students first take a tractor apart, with the teacher explaining the structure and fundamentals of the machine. Then a tractor driver explains and demonstrates how to operate the machine. Students are then taught to drive it. Through this process many students can work as tractor drivers and repair workers for the rural areas after graduation.

Over the last few years, students and teachers have been formed into groups, each of which is linked up with a production team. During the busy farming seasons, they help the peasants with sowing and harvesting. At ordinary times, they spend half a day a week working together with the peasants. The students frequently take part in the evening political schools in the villages, where they get ideological education from former poor peasants and, on their part, help raise the general cultural level of the peasants. Such close school-peasant contact deepens the understanding between peasants and students and they are like members of one family. The students and teachers can learn from the clear-cut class standpoint of outstanding peasants, and from their revolutionary spirit of hard work and their love for the collectivity and for the country. They also learn what the needs of the rural districts are and can improve their teaching to meet them.

Every year the Yuehkochuang village middle school (which has an enrolment of nearly 1,000) graduates many students; most of them become peasants in the Lukouchiao commune. Imbued with a great love for the rural areas, they work with determination to build up a new socialist countryside. Tempered in the three great movements of class struggle, struggle for production and scientific experiment, many have become Party and Youth League members. Quite a number are playing a leading role in experimental scientific farming or work as tractor drivers, electricians and book-keepers.

Source: Reprinted, with permission, from "PROSPECTS, quarterly review of education", UNESCO, Vol. V, No. 4 1975

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: Iran

EIA No: 54

No: 2

Date of issue: December 1975

Title: REVOLUTION CORPS UNIVERSITY OF IRAN : THE SCHOOL OF CORRESPONDENCE

The School of Correspondence was established for the preparation of teachers, supervisors and school administrators for the rural elementary schools, guidance cycle and high schools. In addition, the school is engaged in training community leaders, administrators and supervisors for the programmes of the Ministry of Co-operatives and Rural Affairs.

The school is working towards the realization of the following goals: (i) imparting a systematic instructional programme to a portion of manpower currently engaged in villages, districts and remote parts of the country assisting in the implementation of national programmes of education and development and (ii) promoting opportunities for higher education for educationally ambitious young adults unable to attend universities due to the remote location of their residences and other reasons. The training programme is administered through a combination of correspondence and residential programmes. Presently there are about 4,000 students enrolled in different fields, namely: mathematics and physics, chemistry and natural sciences, Persian language and literature, elementary education, co-operatives and rural economics, banking and postal management.

Objectives

1. To impart a systematic academic instruction to the teachers working in the villages and remote districts of the country; to assist them in the implementation of national programmes of education and development and further update their knowledge and skills so as to promote their efficiency.

2. To provide opportunities of higher education for high school graduates assigned to serve in the rural areas of the country, update their scientific and technical knowledge and encourage their continued service in the rural areas.

The programme is intended, in addition, to mobilize potential human resources envisaged for active participation at village levels as well as in districts and provincial areas.

Correspondence is the basic medium of learning. Principles of distance learning, therefore, are applied for enhancement of the instructional programme. Instructional materials are developed by outstanding professors and lecturers. The instructional materials are reviewed and refined by a compilation committee before reproduction and distribution to the students. The students are required to study and learn the contents of the texts according to a prescribed time schedule.

In order to evaluate students' achievement and progress, tests and questions are formulated every month and sent to them. The students are required to supply answers within a stated period of time and return them to professors and lecturers.

Supplementary materials such as cassette tapes and reference books are sent to the students. Library service is made available through the post.

Residential training through preparatory classes, regional classes during weekends, vacation classes for 10 days, and summer classes for four to six weeks are provided to remove the deficiencies arising from non-attendance at regular classes.

For practice teaching, the students are required to perform an analytical survey of the curriculum and texts on subjects taught by them in their respective classrooms and to transmit their work papers for comments. Also they are required to do demonstration teaching during summer classes.

Final assessment is done through the examination at the end of each year.

The main features and impact of the programme are summarised below:

i) The programme is financed entirely by the government and is financially secure. Moreover, the study shows that investment made on this programme per student is much lower than the cost of operating the regular institutions.

ii) The programme is carried out for purposes of providing opportunities for higher education for educationally ambitious adults unable to attend universities due to their career responsibilities and the remote location of their residences. This purpose is adequately met by devising distance-learning techniques and programmes.

Although the students may not have the same opportunity for group discussions and interchange of opinions as in traditional formal institutions, having once become accustomed to the methods and policies of the School of Correspondence, they develop capacities for: a) problem solving on their own; b) self study; c) self-aid and d) self-discipline fostering a sense of self-confidence at a very high level. Economically, this programme has a tangible advantage: concurrently with the performance of their assigned duties of teaching, teachers undergo extensive training to develop their professional qualifications. Under the system, there is no need to replace teachers enrolled for studies at the School of Correspondence. Educationally too, this group of teachers is consistently exposed to the process of learning.

iii) The programme is productive because it serves a large number of teachers who can be trained without being removed from their work as teachers in the villages and remote districts.

It is also indigenous because it is geared to the needs of the rural schools and national development. It is also considered innovative because it generates creativity and self-reliance among students.

iv) The performance of the programme requires a highly efficient personnel for the production of instructional materials. The access to the programmed materials will improve the instructional methods.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: Indonesia

EIA No: 55

No: 3

Date of issue: December 1975

Title: IMPROVEMENT OF SUPERVISION

Background

In 1974 Indonesia started a new educational reform aimed at converting the existing system of education into a system more relevant to the developmental needs of the country. To facilitate the reform, several projects were launched such as development of new textbooks and production of teaching aids, school-community cooperation and decentralization of examination. One of the most important innovative projects was the development of new curricula for primary and secondary schools. A new strategy has been followed to ensure that the teacher will be well informed about the new curriculum and how to implement it. One of the activities which has been seriously undertaken is the improvement of school supervision. It is hoped that by providing effective and systematic supervision to teachers and all those concerned with the new curriculum, the quality of education will subsequently be improved. In this connection a new concept of supervision is formed which covers a broader range of persons to be supervised and the diffferent kinds of training and supervision needed by each group of persons.

Objectives

a) To provide systematic training to supervisors, headmasters and teachers so that they may play their roles effectively in implementing the new curriculum.

b) To set up a systematic approach to supervision.

Implementation

The first step taken before the project started was to formulate a new concept of supervision. Four pertinent questions were brought up for consideration: i) Who are to be supervised? ii) What are to be supervised? iii) Who are the supervisors and who should they supervise? and iv) How is the job to be done?

In response to the above questions, it was agreed that five groups of people should receive supervision, namely, the local supervisors, the headmasters, the teachers, the school administrative personnel and the students. Regarding the kind of supervision needed by each group it was stated that for the local supervisors, their supervising ability should be enhanced whereas the headmasters should develop their skills in leadership, administrative ability, educative ability and communicative ability. The teachers themselves need to improve their knowledge of subject matter, teaching ability and their human relation skills, especially with the headmasters, other teachers and with the students. As for the administrative personnel it was felt that administrative performance would need to be strengthened, whereas the students should acquire more skill in learning performance.

Regarding the third question which aims at specifying the respective persons to be supervised by those concerned with supervision, the following classification was suggested: i) The central administrators should supervise the local supervisors and headmasters; ii) the provincial representatives should supervise the local supervisors, headmasters, teachers, and administrative personnel; iii) the local supervisors should supervise the headmasters, teachers, administrative personnel and students; iv) the headmasters should supervise the teachers, administrative personnel and students; v) the teachers should supervise the students.

To answer the question on how is the job to be done, a format was prepared which gives clear statements on how responsible persons in each category should carry out his work.

In implementing the project to improve supervision a new strategy was adopted to get teachers, supervisors and headmasters well informed about the new curriculum and how to implement it. The strategy is as follows:

1. Provincial supervisors and headmasters gathered nationally and provincially, were briefed thoroughly in everything relating to the new curriculum - the philosophy, content, new methods of teaching and learning, lesson plan, evaluation, etc.

2. Subsequently, teachers of various subject matters were brought together in a short training course, where they were trained in the implementation of their own syllabus. The training programme consisted of the following items: structure of the new curriculum and its philosophy; content of the curriculum; new methods; lesson preparation and evaluation.

3. Following the above activities the responsible persons would consciously implement the new curriculum. The supervising responsibilities of each person would follow the planned concept as stated previously.

Apart from the financial and human resource inputs, equipment and facilities were made available to all the schools in order to equalize the quality of education.

The key innovative features of the project are:

1. A broader concept of supervision has been adopted.

2. The training of all persons concerned with the curriculum has been undertaken to enable them to carry out their tasks.

3. Other supporting activities have been carried out simultaneously to promote the success of implementation.

4. Co-operation between those concerned with curriculum implementation has been strengthened.

Source: Report of a High-Level Exchange Personnel Workshop (Pakistan, 1-10 November 1975) Asian Centre of Educational Innovation for Development, Unesco Regional Office for Education in Asia, Bangkok 1975.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: Afghanistan

EIA No: 56

No: 1

Date of issue: December 1975

Title: SCIENCE CENTRE, MINISTRY OF EDUCATION, KABUL

In order to improve the quality of education and to contribute to the regeneration of the education system, the Government of the Republic of Afghanistan, with assistance from Unesco, launched an Integrated Educational Development Programme, which included a project for the improvement of science-mathematics teaching and the development of teaching aids. To implement this project, the government in September 1971, established a science centre and attached it temporarily to the Centre for Audio-visual Aids.

The science centre has the following objectives:

a) Curriculum development in science and mathematics teaching.

b) Development of prototype equipment.

c) Production of simple science-mathematics equipment for the schools.

d) Repair of science equipment.

e) Training of science supervisors and science-mathematics teachers, in cooperation with the teacher training institutions.

f) Research in science education.

Teaching of formal science starts from the first year of the middle school (Grade VII) and continues till the end of the lycee stage (Grade XII). During all these years science is taught through the individual disciplines of physics, chemistry and biology, all the three subjects being taught each year, except in Grade X, where biology is replaced by geology.

Considering the number of schools in the country and the resources available - physical, financial and human - the centre concentrated its efforts on the middle and lycee stages of education. Instead of developing an entirely new curriculum for science and mathematics, a revision of the existing science-mathematics textbooks, with a view to updating and upgrading the content to bring it in line with the modern approaches of science teaching, was taken up as the main task under curriculum development. As hardly any experiments were done in science classes, students laboratory manuals and teachers' laboratory guides were developed to accompany the revised textbooks. During the last four years, the centre has completed the first cycle of revision for both the middle schools and the lycees. Apart from the professional staff of the centre, the revision committee included university professors, teacher educators, ministry officials and selected classroom teachers.

The acute shortage of science equipment in most of the lycees and a more or less non-existence of the same in the middle schools, reduced science teaching in the schools to merely reading the book. Moreover whatever little equipment is available is imported and needs large funds, which are difficult to find. To meet this challenge, the centre, with assistance from Unesco, established various workshops for the design and production of simple and cheap science-mathematics equipment from indigenous resources. The subject-groups with the technical staff of the workshops designed the equipment. To meet the difficulties of storage and transportation, the equipment was assembled in the form of kits. Such kits,which to begin with,were made as teacher demonstration kits - each for physics, chemistry, biology and mathematics for both the middle and lycee stages were designed and batch-produced by the centre and supplied to selected schools in all the provinces. The equipment designs were developed in such a manner that the cost of production was kept to a minimum and a single piece of equipment could be used in a number of experiments and for different purposes. Savings of more than 200 per cent were made in costs for certain essential items like laboratory stands, pulleys, resistances, motors, etc. The supply of kits has made a big change in the approach to the teaching of science in the schools, where teachers feel more comfortable using the simple equipment rather than more sophisticated, imported materials.

Though the revised textbooks and supply of equipment are important components in science teaching, the project has recognized that the teacher continues to be the pivot of teaching-learning activity in the schools. Surveys undertaken in the project showed that there is an acute shortage of qualified science-mathematics teachers in the schools of the country, and even the teachers who are teaching these subjects need updating and upgrading. The centre, therefore, took up an extensive in-service training programme for science-mathematics teachers. The training courses ranged from two to three weeks and were organized in provincial headquarters and teacher training institutions. The professional staff of the centre constituted the faculty for these training programmes. The revised textbooks, laboratory guides and kits developed by the centre were used during these training programmes where emphasis was to develop experimental and manipulative skills, so that on return from training the teachers, to begin with, could at least demonstrate about 30 experiments in each subject at both the middle schools and lycees.

To continuously assist the teachers after the training, two science supervisors were posted from the centre to each province. These supervisors are periodically trained at the centre in a four-to-five-week programme. During the last three years, the centre has trained more than 1000 teachers and supervisors.

The special features of the project are : (i) An integrated package of pupils' instructional materials, science equipment and teacher training materials have been developed; (ii) Considering the limited resources available, a step-wise change has been attempted rather than attempting to develop a totally new curriculum for science and mathematics; (iii) The maximum input has been made for the development of the human resource - the teacher.

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Inventory of Educational Innovations in Asia

* VOL. 2 *

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Asian Centre of Educational Innovation for Development

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Asian Centre of Educational Innovation for Development
Unesco Regional Office for Education in Asia
C.P.O. 1425, Bangkok (Thailand)

The Inventory of Educational Innovations in Asia (IEIA) brings together brief reports of innovative efforts underway in the Member States in Asia, for the benefit of those who in their search for solutions to urgent problems are engaged in planning and implementing innovative educational programmes.

The first volume of the Inventory, published in December 1975, consisted of 56 reports. This second volume contains the first dispatch in 1976 of 18 reports, with additional ones to be dispatched from time to time.

The top-right corner shows the serial number and each report is numbered sequentially. Each report is also numbered by country. This simple numbering system, rather than a classification scheme, has been adopted to facilitate the receiver's classification of the reports to suit the receiver's need and use.

ACEID WILL WELCOME COMMENTS, AND ALSO CONTRIBUTIONS FOR POSSIBLE INCLUSION IN THE INVENTORY.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Despatch No. 1-76

EIA Nos. 57-74

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: AUSTRALIA

EIA No: 57

No: 1

Date of issue: July 1976

Title: PROCESS APPROACHES AND CHILD EDUCATION (PACE)

Background:

This project was initiated by the Centre for Research in Learning and Instruction, Department of Education, New South Wales. The duration of the project is 4 years, from 1972-1975. It is an attempt to make a comparison between the use of process curricula and the existing enriched curricula. The process curricula are defined as those courses or curricula which are in line with Piaget's theories of learning. The nature of the project is both experimental and for purposes of research and development. The project was implemented at the third and fifth grade levels, and as far as possible pupils remained in the same classes for two years.

Objectives:

The primary objective of the project is to determine the effectiveness of process curricula as compared to enriched curricula. Specifically the objectives are to determine:

i) whether process curricula can induce children to cross stages of intellectual development more rapidly than ordinary curricula;

ii) whether process curricula can induce the development of process outcomes, e.g. moral development, class reasoning, verbal fluency;

iii) whether process curricula would have any influence on normal skills and information;

iv) whether process curricula have any influence on affective development, e.g. anxiety, self-concept, attitude to school;

v) whether indirect teaching methods promote the elements mentioned in i-iv above;

vi) whether the implementation procedures would cause teachers to change their teaching style;

vii) whether indirect teaching methods would become more indirect when given the implementation procedures associated with process curricula.

In addition, it aims at two development objectives:

i) the development of teachers through the project via in-service training workshops and the like;

ii) the development of modules for dissemination of experiences provided in the project. ("Module" = kit for self-instructional use by staff in schools).

Implementation:

In implementing the project, the following activities were undertaken:

i) A comprehensive plan was developed involving all who would be concerned with the project. The plan specifies clearly the activities to be carried out by each group at various stages of implementation.

ii) Selection of pupils and teachers were made. For pupils in the process groups, the textbook "The Process Way to Science" was used; in the enriched groups, "the Natural Science Curriculum for Primary Schools in New South Wales" was used. There were 38 volunteer teachers, all of whom were audio-taped in the classroom situation in 1972 and ranked to show the extent to which each teacher was direct or indirect in his/her behaviour. In 1973 and 1974 all participating teachers were again audio-taped to see if their teaching styles had changed.

iii) In the meantime from Term 1, 1973, to Term 3, 1974, in-service training of personnel was undertaken, specifically for teachers, advisers and testers. In-service training modules were developed, of which two related specifically to science.

iv) Two sets of tests were given: (i) primary evaluation programme; and (ii) tests of stage transition and process outcomes.

v) Production of materials developed during the experiment was carried out at the end of the project.

Outcomes:

Specific outcomes which have been achieved so far are:

i) children taught under process curricula demonstrate superior performance on one of Piaget's tests of formal operations;

ii) there is also some indication that these children were superior performers on a test of valid inference drawing;

iii) a supplementary study by Fraser of the same children indicated that those taught by process curricula were superior performers on a test of biserial, multiplicative classification (Piaget).

Project Evaluation:

Evaluation of the project has been made via a questionnaire to teachers regarding which aspect(s) of the project influenced them, and to what degree.

Inputs:

Funding support was provided by New South Wales Department of Education and Australian Education Research and Development Committee. The total cost is $105,000.

Innovative Features:

1. Use of new approach in curricula implementation.
2. Systematic and scientific implementation involving specialists in various areas.
3. Provision of adequate in-service training of personnel throughout the experiment.
4. Provision of systematic test and evaluation.
5. Combination of experiment and development of materials.

Source: Country Report (Australia), prepared for the Regional Meeting on the Trends and Problems in Science and Technology Education in Asia, convened in Singapore (20-29 July 1976) by the Unesco Regional Office for Education in Asia (Bangkok)

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: BANGLADESH

EIA No: 58

No: 2

Date of issue: July 1976

Title: BANGLADESH EDUCATIONAL EQUIPMENT DEVELOPMENT BUREAU

Background:

Of the various problems that science education and technology education in Bangladesh are faced with, the problem of equipment has remained very acute. The main bottleneck with regard to equipment is the unsatisfactory condition in their availability and in their supply to the educational institutions, and in the proper use and maintenance of equipment and apparatus available in the institutions.

No worth-while attempt has, so far, been made at the manufacture of equipment within the country. Only a few disjointed small-scale workshops have been making attempts at manufacture of educational equipment. Standard designs and quality control are virtually non-existent. Equipment and apparatus produced by them have been largely sub-standard primarily due to lack of technical know-how, scientific production methods and understanding of educational needs and again, very meagre in quantity to meet even partial requirement of the schools and colleges. Import of science equipment, to which the country has been forced, results in high prices and considerable drain of foreign exchange. The situation with regard to use and maintenance of equipment and apparatus available in the schools and colleges has also been, generally, very unsatisfactory.

The Bangladesh Educational Equipment Development Bureau has been established with a view to developing educational equipment, stimulating local manufacture of equipment to permit savings in foreign exchange and improving the situation regarding use and maintenance of equipment available in the schools and colleges. The on-going scheme for the establishment of the Bangladesh Educational Equipment Development Bureau, Dacca, was approved in 1964. The Bureau started functioning from 1965.

Objectives:

The Bangladesh Educational Equipment Development Bureau has been established to look into the problems of educational equipment and to:

i) develop educational equipment and take measures to stimulate manufacture of educational equipment that are in greatest demand and that are integrated with the curricula to permit savings in foreign exchange;

ii) set up standard designs and quality control;

iii) take measures to assure that equipment and apparatus available in the educational institutions are fully utilized and properly maintained;

iv) take appropriate steps to improve planning and research in educational equipment, and to gain knowledge about new teaching devices and technological advancements in other countries.

Scope of the project and strategy adopted:

The Bureau presently has the following functions:

i) improve planning and research in educational equipment;

ii) introduce, through prototypes, designs in educational equipment and apparatus, including laboratory glasswares, teaching aids and kits;

iii) promote local manufacture of standardized educational equipment;

iv) provide designs and advisory services to the manufacturers to improve their skill and understanding of educational needs;

v) provide quality control and price-standardization services;

vi) prepare standard lists of equipment in accordance with syllabi and curricula, and instruction manuals on and purchase guides of equipment with specifications, etc.

vii) advise teachers in the use and maintenance of equipment and apparatus available in the schools and colleges.

The Bangladesh Educational Equipment Development Bureau functions under the administrative control of the Directorate of Technical Education. The Bureau presently has a nucleus professional staff consisting of a Director and a few subject specialists who together cover such fields as physics, chemistry, biology, industrial arts, visual aids, etc. The Bureau is guided in its work by an advisory committee and several subject ad-hoc committees to ensure its development work in accord with curricula and teaching practices best suited to educational requirements and standards.

Educational prototypes of equipment is first developed. An industrial model of educationally satisfactory prototypes is then designed with due considerations given to maximum utilization of raw materials and components available in the country. The prototypes are placed before the subject ad-hoc committee for examination and approval. Later through private workshops the Bureau produces standardized science equipment for about 120 selected laboratories in schools and colleges in the country. This measure is aimed to encourage manufacturers to produce these equipment items in large numbers. These model laboratories are equipped with a view not only to help in raising the standard of science teaching but also to inspire schools and colleges in the adjoining areas, and in due course, to use a small number of these model laboratories as the satellite in-service training centres for science teachers and laboratory technicians.

A science laboratory and a small quality control laboratory have been set up in the Bureau for purposes of research and development, try-outs, testing, and quality control of equipment where prototypes and equipment produced locally under the sponsorship of the Bureau are tested, evaluated and its quality inspected. These equipment items are also tried and evaluated by the students and teachers in the science laboratories of the schools and colleges receiving these equipment items from the Bureau. Groups of science teachers from various schools and colleges are also brought to the laboratory of the Bureau for purpose of try-outs and evaluation of these equipment items. The scheme provides for training of personnel in specialized institutions within the country.

Project Outcomes:

A minimum requirement science equipment list based on the existing science curricula of the secondary and higher secondary levels of education has been prepared. Designs, complete with specifications, and prototypes of some 150 items of equipment and 35 educational charts have so far been developed. Some 120 items of equipment and 12 educational charts produced locally through private science equipment manufacturing workshops have been given to 120 educational institutions. A quality control laboratory and a model classroom laboratory have been set up for research, testing, try-outs and evaluation, and quality control of equipment produced locally. Instruction manuals containing illustrated descriptions and brief instructions on use and maintenance have been developed for several equipment items. Science teachers receiving equipment from the Bureau are given short training on the use and maintenance of equipment. The manufacturers are being supplied designs and blueprints of equipment complete with specifications and extended advisory services to improve their skill and understanding of educational needs.

It has been, and is, possible to manufacture locally equipment of standard quality - a situation not experienced before. The consensus as also confidence now prevails amongst the manufacturers that, given proper assistance and encouragement, most of the educational equipment for schools and colleges can now be produced in the country.

Evaluation:

Evaluation of the progress of work and implementation of the project programmes is done at the level of the Advisory Committee of the Bureau, the Directorate of Technical Education and the Ministry of Education, Government of Bangladesh.

The evaluating bodies have expressed satisfaction over the progress in work and over-all achievement in the project programmes and have recommended that this development project should continue on a permanent basis with necessary expansion in its facilities.

A scheme for expansion of the project during the years 1975-78 has been submitted to the Government. A provision has been included in the scheme for raising buildings for office, workshop, etc., on a permanent site, and extension of other facilities including staff. The expansion programme includes activities in matters of design and development of educational equipment and toys for the primary level of education, besides those for secondary and higher secondary levels of education. The programme includes concentrated and effective activities to be taken by the Bureau towards promotion of local manufacture of educational equipment for all levels of education. The proposed workshop would be used for (i) prototype making, and (ii) pilot production, and is aimed to act as the nucleus production unit in offering leadership to the country in matters of manufacture of educational equipment. It has been proposed that the Bureau be given authority to act as the co-ordinating and regulating agency for organizing and controlling production of science equipment.

Source: Country Report presented to the Regional Meeting on the Trends and Problems in Science and Technology Education in Asia, 1976.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)
Country: INDIA
EIA No: 59
No: 9
Date of issue: July 1976

Title: NON-FORMAL EDUCATION FOR THE AGE-GROUP 15-25

Background:

In India there are 90 million young people in the age-group 15-25, out of whom 52 million are illiterate and 20 million are semi-literate. They have never been to a primary school or, if they have, they have left it too early. But they are alert, active, curious to learn, and many of them are engaged in economic activities and play varying roles in their communities. Several of them may have also married and raised a family. This group is often bewildered by problems which they only dimly comprehend due to lack of educational competence. If prepared adequately, they represent potential youth wealth which can play a positive, constructive and informed role in the country's development and also live fuller lives themselves.

Objective:

The objective of this project is to develop a composite non-formal education programme for the illiterate and semi-literate youth in the age-group closely related to their needs of personal fulfilment, and based on requirements for their family, civic and community life and participation in development.

Status:

The project was sanctioned in December 1975 in one district in each of the 22 states and Union territories, to be fully financed by the central government. Central funds have been released to all the states and Union territories.

In addition, most of the state governments are starting the same kind of programme at least in one additional district out of their own funds. Each district is expected to organize the programme in about 100 villages, in each of them about 30 youths.

The Ministry of Education through the Directorate of Non-formal (Adult) Education provides professional and technical assistance to the state governments in preparing the operational plans, in curriculum formulation, in developing prototype materials, and in training key personnel. Guidelines for the preparatory work for organizing the programme have been provided.

The design of an initial survey to identify environmental and learners' needs in each situation has been provided to the state governments.

Several state governments have initiated action for starting the programme, such as: training of personnel; organizing surveys; development of curriculum and preparation of teaching and learning materials.

Since this scheme represents only the beginning of a long-term educational strategy in which non-formal and informal modalities will combine with the formal system in creating facilities for lifelong education for various sections of the society, steps have also been simultaneously initiated for promoting interest and initiatives among governmental and non-governmental agencies in all aspects of non-formal education through publications, dialogues, conferences and symposia.

Special features:

- Flexibility and diversification are crucial guiding principles - in timing, organization, content and methodology.
- Curriculum is being built on the basis of (a) well-identified needs in the framework of various environments and of learners' groups, in the light of socio-economic and socio-cultural objectives; (b) problems and obstacles which stand in the way of realizing these objectives; and (c) remedial measures to overcome these obstacles.
- The curriculum components include knowledge and understanding of the socio-economic, scientific and technological factors in the environment, elementary principles of health, hygiene and family life education; basic literacy skills; introductory occupational and vocational skills to prepare youth for employment and self-employment and ways of maximizing the potential of human resources.
- The curriculum formulation and treatment will adopt an inter-disciplinary approach integrating scientific explanations, socio-economic changes, attitudinal and behavioural orientations, leading to action.
- The emphasis is on learners' participation at all stages of the programme.
- The programme will be about 350 hours' duration, organized in various ways, in sequence or in recurrent spells, according to learners' needs.
- The programme envisages the mobilization of local human and material resources both in its design and operation.
- Evaluation is an in-built element.

Products:

- A printed publication, Main Schemes of Non-formal Education, contains a detailed explanation of the scheme. (Off-prints of the part related to the age group 15-25 are available in English and Hindi)

- Mimeographed document entitled: The Preparatory Work for the Implementation of the Scheme containing:

  a) steps for initiating the programme;

  b) the design of an initial learner survey;

  c) elaboration of the programme; and

  d) the first steps for implementation.

- Information Sheet (No. I, December 1975) on the progress of the project in the different states, main elements of the scheme, basic aspects of its organization, and the districts selected.

- One prototype unit illustrating the integration of various pedagogical components around one sub-problem accompanied by a curriculum and teacher's guide.

- A set of 28 units and 14 content sheets developed by the government of Uttar Pradesh through the Literacy House, Lucknow.

- A variety and range of publications, discussing the various aspects of non-formal education for different categories of learners and the roles of different agencies in promoting non-formal education.

Source: Directorate of Non-Formal (Adult) Education
Ministry of Education and Social Welfare
Government of India
New Delhi, India

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Ministry of Education and Social Welfare
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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: INDONESIA

EIA No: 60

No: 4

Date of issue: July 1976

Title: EDUCATIONAL BROADCASTING EXPERIMENT

Background:

From the organizational point of view, educational broadcasting in Yogyakarta and Semarang needs better management in terms of broadcasting material, supervision and feedback. The school broadcasting in Yogyakarta has been in operation since 1968, and is carried out by the local government in co-operation with the Regional Office of Education and RRI (Government Radio Station), whereas the educational broadcasting in Semarang is conducted by the Central Java Regional Office of Education for teachers' in-service training purposes and policy communication.

Exploration and computation led to the choice of radio as the best media for the present project. Radio can be used in three ways: radio alone; radio plus the corresponding printed material; and radio-vision. The most feasible of the three would probably be radio plus printed material.

Objectives:

The general objective is to find ways to use radio effectively to support education; the specific objectives are to find effective techniques to utilize radio in:

1. In-service training for primary school teachers.

2. Classroom instruction, integrating it with the regular system and curriculum.

Implementation:

1. 1972-1973: preparatory stage

   a) General planning

   The general planning was prepared in co-operation with the Ministries of Information and Communications, the Telecommunication Board, Universities (University of Indonesia, Jakarta; Bandung Institute of Technology); Teacher Training Institutes (Jakarta, Bandung, Yogyakarta and Malang); radio associations and information experts during the Cipayung Workshop.

b) Recruitment and training of personnel

The training of personnel was carried out in Indonesia with the assistance of Unesco experts, and abroad by the Regional Broadcasting Training Centre, Kuala Lumpur, the Australian Broadcasting Commission Training School, Sydney, and the Centre for Educational Development Overseas.

c) Studies and surveys

The following studies and surveys were conducted in co-operation with universities and other bodies to get data and information needed for better planning and design purposes:

i) Research on the influence of educational broadcasting in Semarang and environment, and in Yogyakarta by PT INSCORE.

ii) Research on the management of educational broadcasting by the Lembaga Management (Institute of Management), University of Indonesia.

iii) Study on specification and design of receivers by Bandung Institute of Technology.

iv) Project design was made in co-operation with the Teacher Training Institutes, Jakarta and Malang.

v) Provision and improvement of facilities.

- Rooms were modified and renovated for production centres in RRI Semarang and in the RRI transmitter station in Yogyakarta.
- Complete studio equipment was provided for programming.
- A sample receiver was selected.

2. 1974-1975: experimental stage

Activities during this stage covered:

a) Determining programme outlines for broadcasting;

b) Script writing and the production of an introductory programme;

c) Try-out and revision of the programme;

d) Determining experiment samples;

e) Preparation and distribution of supplementary material;

f) Training for teachers on how to utilize educational broadcasting programmes;

g) Distributing receivers;

h) Getting feedback to improve the programme;

i) Supervision and monitoring of the implementation of broadcasting; and

j) Evaluation.

3. 1976-1979: expansion stage

If this project is fully successful, it will be expanded gradually (i) throughout the experimental area during 1976-1978; (ii) in two other provinces beginning in 1979 with additional subjects.

If the project is less successful, then: (i) there will be a review starting from the implementation stage; (ii) the findings of the review will be incorporated in a new experiment in the same experimental areas.

If the project is a failure, then a total review will be conducted to explore other possibilities.

Problems and Constraints:

1. It is not easy to get qualified personnel on a full-time basis for this experiment. To date not all producers are experts in the field they are held responsible for.

2. At present not all areas are able to receive RRI broadcasts clearly. It is hoped that this will be overcome when a more powerful medium-wave transmitter is used.

3. The time allotted for educational broadcasting is limited. Therefore, it is difficult to adjust the broadcasting schedule to the schedule of the target listeners.

4. At present it is not easy to get a domestic radio manufacturing plant that is able to produce standard radios in great quantities within a short time. The receivers now used are not of good quality.

Performance and Impact:

Assessment is being carried out both in Yogyakarta and Semarang. The results are not available yet. Some data on the implementation of educational broadcasting in Yogyakarta show that the sample teachers are well aware of the objectives of educational broadcasting while broadcasting material needs improvement. It is hoped that with the improvement of broadcasting material, participation in it will increase.

Key Innovative Features:

The use of radio in teachers' in-service training is classified as innovative, for the following reasons:

1. It is something new - the media, the delivery system and the organization.

2. It is efficient in accomplishing a specific objective, viz. increasing the teaching ability of teachers.

3. It is also efficient in terms of time. All teachers can take part in the in-service training at the same time without necessarily leaving their jobs.

4. It may lead to the standardization of subject matter in all schools. It may also overcome special problems e.g. lack of musical instruments in teaching vocal arts or the teacher's inability to sing well; it could help in teaching a foreign language especially where the teacher's pronunciation is not good. Radio can introduce master teachers or even native speakers.

Other important features worth mentioning are:

1. The manual, produced by the project, dealing with the planning, preparation, implementation and management of educational broadcasting;

2. The co-operation shown by other bodies in the field of education and radio broadcasting;

3. The initiative of the target teachers in arranging study trips, seminars and discussions related to educational broadcasting.

Source: "Seminar on Educational Innovation - Final Report"
Office of Educational and Cultural Research and Development,
Ministry of Education and Culture.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: INDONESIA

EIA No: 61

No: 5

Date of issue: July 1976

Title: STUDY SERVICES (KKN)

Background:

Rural areas in Indonesia are deprived of educated manpower and educated leadership; university graduates tend to seek and accept employment in the major towns or cities. To counteract this tendency, the Directorate General of Higher Education established the Kuliah Kerja Nyata (KKN) Project. Historically, students started taking part in village-level activities during the struggle for Indonesia' independence. It began with student guerillas teaching in rural areas and continued through such schemes as the student volunteer recruitment scheme for teaching in high schools (PTM) in 1950-1961, students helping increase rice production through mass guidance (BIMAS) in 1963, and the establishment of the Indonesian Board for Volunteer Service (BUTSI) in 1969. The KKN Project is a modification of these activities.

KKN started during the first five-year development plan period with three universities running preliminary pilot projects in 1971/1972. Then, in February 1972, President Soeharto suggested that at least six months of village-level development work should become part of every student's curriculum.

Objectives:

The general objective is to provide the students with practical experience in responding to rural development needs and problems and to provide educated manpower for the development of Indonesia's 58,000 villages. Specifically, the objectives are:

a) To familiarize students with village-development problems through an interdisciplinary approach;

b) To encourage students to work in rural areas after graduation;

c) To develop the students' initiative, self-confidence and problem-solving ability;

d) To make higher education more relevant to Indonesia's development needs;

e) To give university faculty members experiences outside their lecture rooms by exposing them to the realities of Indonesia's basic development problems.

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Strategy and scope:

Planned and gradual dissemination to:

a) all universities and institutes, both state and private; and

b) about 23,000 third-year students, each year.

Implementation:

In 1971/1972 three universities carried out KKN preliminary pilot projects involving only 40 students; in 1973/1974 thirteen universities sent 410 students to take part in this project, and in 1974/1975 the scope of the KKN Project increased to approximately 1,200 students from 15 universities.

Before the try-out, a 'fact-finding mission' was sent to the villages to gather information on them, e.g. historical background, political administration, education, socio-economic situation, religion, customs and tradition, health care, agriculture.

Students were then provided with data on the villages' customs and traditions, religious problems, public health, nutrition, manpower, village co-operatives, village administration, government/village societal development, planned parenthood, cattle breeding, agriculture, and industry.

The following approach was used by KKN:

a) Community survey;

b) Planning;

c) Implementation of programme activities:

   i) Consumer education: informing the local administrators, heads of sub-districts and villages and other local leaders on the meaning, objectives and the merits of the project to be implemented;

   ii) Using a cross-sectoral approach to development;

   iii) Using methods to assist, guide, encourage and stimulate the village society;

   iv) Evaluation.

Facilities:

Vehicles, field equipment, stationery, medicine, rice seeds, etc. were provided by the universities.

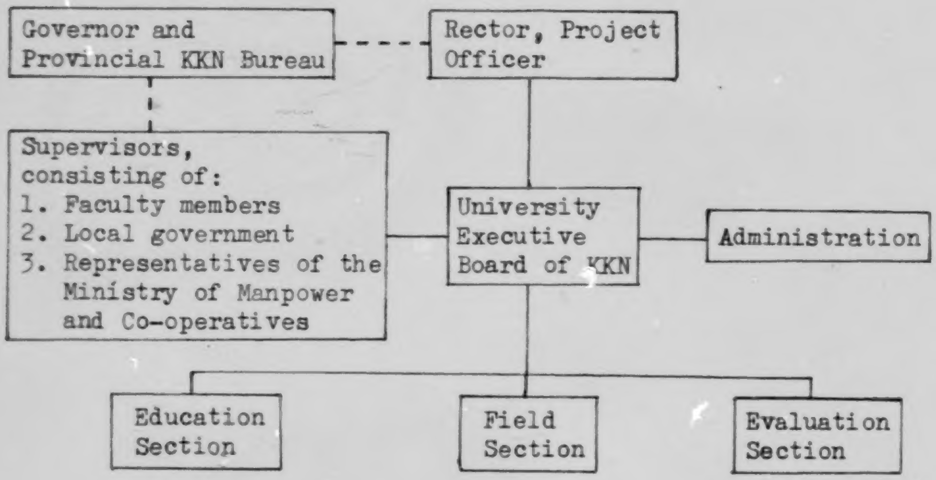
Financial support and other materials were supplied by the Ministry of Education and Culture and the provincial governments.

The Ministry of Education and Culture granted Rp. 2,500,000.- (US$6,025) to the three universities that carried out the preliminary pilot project in 1971; in 1973 it gave Rp. 9,845,000.- (US$23,725) to 13 universities; to 15 universities it gave about Rp. 30,6[illegible],000.- (US$73,962) in 1974.

The average cost per student in the field is about Rp. 10,000.- (US$24) a month.

Management:

The project's staff consists of the Rector of the university (as Chairman), his assistants and university faculty members. The management pattern for the project is shown in the following diagram:


Governor and Provincial KKN Bureau
Rector, Project Officer
Supervisors, consisting of:
1. Faculty members
2. Local government
3. Representatives of the Ministry of Manpower and Co-operatives
University Executive Board of KKN
Administration
Education Section
Field Section
Evaluation Section

Performance and impact:

The KKN participants have been helping the village heads to co-ordinate the various extension services for the development of the villages. Among other things the students have participated in health care and education; agricultural extension; animal husbandry; village administration; family planning; nutrition; building of roads, bridges and irrigation canals; social activities; reforestation schemes; erosion control and non-formal education.

In the development of village youths as potential change agents and future leaders of the community, KKN has played a very important role as shown below:

a) KKN substantially and directly increases the relevance of higher education to Indonesia's development needs. The experiences; gained through KKN will play a continuing and important role in changing the curricula of higher education to make them more related to Indonesian needs and conditions.

b) KKN helps to decrease migration to cities and towns.

c) The students are able to help the village people to identify community problems and potentialities.

d) KKN, through the village leaders, has created the possibility of establishing village development bodies having close relationships with the provincial development planning boards.

Important and innovative aspects:

a) KKN is providing for government service a steadily increasing supply of candidates who have practical experience in rural development which is basic to Indonesia's national development.

b) KKN, with its network of village-level workers, is becoming one of the major tools for non-formal education in Indonesia.

c) Faculty members, who participated as trainers, supervisors and evaluators, are taken out of their lecture rooms and confronted with the realities of the country's basic development problems.

d) Students have become aware of the importance of rural areas in national development programmes and this makes them willing to accept employment away from major towns.

e) Feedback from KKN helps the universities to make the curricula more relevant to the needs of the nation's development.

Source: "Seminar on Educational Innovation" Final Report
Office of Educational and Cultural Research and Development (BP3K)
Ministry of Education and Culture
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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: JAPAN

EIA No: 62

No: 7

Date of issue: July 1976

Title: TWO-TEACHER FOR ONE-CLASS SYSTEM: A VARIATION OF TEAM TEACHING SYSTEM

Background:

There were two elements which led to the experiment of 'Two-teacher for One-class System' (hereinafter referred to as 'Two-teacher System).

Among the 250 pupils in the fifth grade there were several who were slow in learning and hardly able to catch up with the other classmates. Remedial means for them were badly needed. At the same time, the lower secondary school in the area was highly critical about the achievement level of pupils passing out of this elementary school. It was mentioned by them that even though the lower secondary education is compulsory for all, but unless the elementary school would ensure the standard level of achievement of all its pupils, it would be difficult for the lower secondary school to accept them freely.

There were also several pupils who came from a socially discriminated group. They were discriminated even in the classrooms, and as a consequence their attainment in learning was far behind the others. Parents of the discriminated pupils had been strongly requesting both the Board of Education and the school to abolish such discrimination within the school setting and to provide their children with equal and effective learning opportunities by means of diminishing the class size and increasing the number of teachers in classrooms.

To solve these problems, the Board of Education approved the proposal made by the school for providing two teachers for each class in the sixth grade in order to make individualized and effective learning possible.

Objectives and scope:

The objectives are:

a) To ensure the minimum level of attainment required for the graduation from the elementary school;

b) To provide individualized guidance not only for pupils' learning but also for their behaviours and attitudes; and

c) To promote better human relations between the teachers and pupils.

Due to several constraints in terms of staffing and budget, the project has been limited to the sixth grade only.

Implementation:

Prior to the implementation of the project, a try-out was made in 1973 for the teaching of arithmetic in the fifth grade. The main project was started in April 1974. Two teachers were assigned for each section in the sixth grade to take joint charge of the section. Altogether twelve teachers have been directly involved in the project. Each class was composed of 41 or 42 pupils.

There were trials and errors in the first year of project implementation. What was done could be divided into the following five stages:

1. Beginning stage: one of the two teachers in one class was in charge of the class in the previous year; therefore another teacher was new and needed to observe individual pupils in the class. In the beginning stage the teachers' roles were fixed; one acted as a usual classroom teacher and another as an assistant-teacher.

2. In the second stage, the assistant-teacher began to take care of several pupils who needed special care. The whole teaching-learning process of the class was looked after by the other teacher independently.

3. Study on effective use of the two-teacher system was made. Several patterns of teaching methods were devised, such as joint conduct of the classroom teaching, division of pupils in accordance with teaching topics or pupils' abilities.

4. The teachers involved in the project realized that unless they made detailed study on the teaching-learning processes they could not find effective teaching methods under the two-teacher system. The teachers' attention was geared towards the study on what would be the most desirable teaching-learning process for individual pupils.

5. The teachers reached a conclusion that various patterns of teaching methods should be utilized with flexibility in accordance with the teaching topics, pupils' reactions, degrees of their understanding, etc. The most important point was how deeply the two teachers could grasp the individual need, ability, achievement, aptitude, attitude, etc., of all the pupils in the class. The conclusion itself seems very simple but it was based on the one year's implementation of the project by the twelve teachers.

Performance and Innovative Features:

The nature of the project was experimental and it is also being continued in the school year 1975 at the same school again for its sixth graders. (b) and (c) of the objectives mentioned earlier are likely to be achieved, but it seems impossible to ensure the minimum level of achievement for all pupils. In this year's implementation a study is being made on technical aspects of the two-teacher system including teachers' attitude and their preparatory work.

The innovative features are:

a) Two teachers have been jointly in charge of one class;

b) This has been effective in guidance for pupils' learning and behaviours; and

c) This has been implemented in order to respond to the local requests made by both the parents and the lower secondary school.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: JAPAN

EIA No: 63

No: 8

Date of issue: July 1976

Title: SCIENCE KITS ASSEMBLED FROM WASTE MATERIALS

Background:

Johoku Elementary School, Hemeji-shi, a public school, is one of the 49 primary schools in the Hemeji City, Hyogo Prefecture, Japan. The school has an enrolment of 1,600 pupils.

Recognizing that for creative science teaching/learning, children have to be provided opportunities to have first-hand science experiences and investigate problems, make their own hypothesis and draw their own conclusions, some staff members started a project for providing simple science kits for each child in all the grades 1-6 of the school, so that they could perform a number of science experiments. However, looking at the large number of kits that were required and also considering the limited financial resources of the school, the group decided to assemble these kits from a large variety of waste materials which were available either at home or in the community.

Apart from the above two considerations, the philosophy behind adopting this approach was that such kits being within the average experience of the child are easily acceptable and tend to make science an integral part of the child's experiences. The use of such self-assembled kits also encourages the child to carry out experiments outside the school. Further, this allows the school to utilize its limited available resources for providing expensive formal equipment when and wherever necessary. The children make up their own kit and this changes their attitude towards such kits from one of indifference to that of careful maintenance of the kits. Children also provide ideas for improving the kits, find new uses for the kit or find new ways to perform experiments.

Implementation:

The school made an organized effort in collecting waste materials at a collection centre (one large classroom is being used for this purpose) and to develop uses for them by designing simple science experiments. The children were encouraged to bring from their home or neighbourhood waste materials, like jam jars, drinking straws, a variety of empty plastic food containers, small vials, metal lids and containers, wooden and plastic pieces, etc. In the corridors in front of each classroom are placed racks with pigeon-holes where each child keeps his self-assembled kit. Starting with a simple kit, the children go on adding materials which are brought either from their homes or taken out from the collection centre.

In addition to using these kits in the science classes, the school is also attempting to use inexpensive toys like wind wheels, water pistols, rubber balloon, for designing science experiments. A 'guided enquiry approach', with the guidance being kept to a bare minimum is being used extensively by the school teachers.

As an enrichment programme, the children are encouraged to conduct simple science projects during the vacations. The selected projects are displayed in the school science museum for study by other children. Most of the projects deal with a careful study and analysis of the environment.

Source: Draft report of a Task Force Meeting on Science Education, Tokyo, Japan

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
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of receiver)

Country: REPUBLIC OF KOREA EIA No: 64

No: 4 Date of issue: July 1976

Title: INSTITUTE FOR THE STUDY OF EDUCATIONAL ADMINISTRATION: A PROGRAMME OF IN-SERVICE TRAINING FOR EDUCATIONAL LEADERSHIP

Background:

With the end of the World War in 1945, a massive transformation of the total social system had to be worked out in the Republic of Korea. The school system, being an integral part of the social system, was considered a strategic area for the planned change. Democratic ideals and a democratic life style had to be taught to the young citizens of the country, and this necessitated a reformation of the school system.

The task was a difficult one. The country was undergoing catastrophic societal, economic, and political changes, all of which demanded a response from the education system. Various measures were tried to accelerate the needed transformation, but none proved to be significantly effective. The need for the development of a critical mass of innovators was acutely felt. An intensive and extensive programme for high-level leadership training was therefore proposed. The proposal was well taken by the Government, and the Institute for the Study of Educational Administration was established in the College of Education, Seoul National University, in 1960. As of 1975, more than 1,200 educational administrators had completed the in-service training programme. Two six-month programmes were conducted each year with approximately 40 participants in each. A candidate's proven potential influence was the main criterion for selecting participants.

Objectives:

As indicated above, the programme was established on the assumption that changing the views and attitudes of a significant number of educational leaders and putting them together to form a cohesive group would constitute the first important step in creating an innovative milieu. The major aim of the Institute, therefore, was to create a group of change agents out of highly influential yet conservative and authoritarian educational leaders.

The specific objectives were:

1. To help leaders understand and accept a democratic philosophy of education;

2. To sensitize them to the need for innovations in education;

3. To equip them with the knowledge and skills needed for democratic leadership;

4. To help them value the use of scientific methods in problem solving and become competent in using these methods in their efforts to improve education.

Implementation:

During the 15 years of the programme's operation, continuous changes have been made in the course contents, but the general scope and framework of the programme have not been changed. The programme is divided into four major areas of study: (1) philosophical, sociological and psychological foundations of education; (2) new concepts, issues, and problems in curriculum and instruction; (3) new approaches and methods in the organization and administration of schools; and (4) practicum in problem solving and decision making for better school management.

Courses are planned and run by teams of faculty members of the University. Individual study and group work are the major methods used in the courses. In addition to the course work, each participant is required to submit a complete report on a study of an actual problem faced by him in his work as a principal or a supervisor. For such study activities, consultation is provided to the individual participants. Besides these activities, a programme is conducted to raise the achievement motivation level of the participants.

Follow-up Activities:

Follow-up activities are considered very important for maintaining and furthering the efforts of the training. Graduates of the programme have formed a self-governing organization at both provincial and national levels and regular follow-up workshops are held in each province. At an annual convention, attended by graduates, professors and resource persons, changes in society and schools are assessed and new strategies for the further improvement of education are discussed.

Impact:

Six months of intensive living and learning together culminating in the successful achievement of the programme objectives seem to provide sources of pride and a strong sense of identification for the alumni group.

Now, Korean schools have more than 1,200 educational administrators who identify themselves as innovation-oriented leaders. Already nearly half of the provincial superintendents are members of this group, as are many high ranking officials in the Ministry of Education and Provincial Boards of Education.

In most cases, it is through these leaders that innovative ideas find their way into classrooms for implementation.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)
Country: MALAYSIA
EIA No: 65
No: 2
Date of issue: July 1976

Title: EDUCATIONAL MEDIA SERVICE PROJECT

Background:

The educational scene in 1971 showed remarkable educational growth since World War II. Education in Malaysia was therefore no longer confined to a small population of students, nor was it concentrated only on those who were academically inclined. The comprehensive educational policy required more teachers, more schools and greater financial support. It also required a substantial degree of flexibility in the development of school curricula to accommodate the new and different interests represented in a school population drawn from all sectors of the community.

The contribution which mass media could make to all these fields had already been partially recognized. There were already a Schools Broadcasting Service under the management of the Ministry of Information and an Audio-Visual Aids Centre under the Ministry of Education. Some use had already been made of films and instructional materials in educational and national development work. However, none of these was fully developed and there was little integration between the separate agencies. Although ETV was introduced as an experimental project in 1965, it had been suspended.

Against this background of pressures on education (burgeoning enrolment, curricular renovation and increasing cost of education), the Ministry of Education began to show more interest in educational technology. After considerable planning, it put forward a scheme for the introduction of an integrated Educational Media Service (EMS) to combine the existing Schools Broadcasting (Educational Radio) and Audio-Visual Aids (AVA) sections together with a new ETV section. The aim was to provide a viable working structure for educational media, including ETV, using existing agencies (with some modifications).

Objectives of EMS:

In respect of the Educational Media Service and in agreement with the objectives of the Second Malaysia Plan, the Ministry of Education aims at:

a) strengthening the national education system by reducing imbalances and improving educational opportunities in rural schools which are handicapped for lack of qualified staff and equipment;

b) improving the quality of education by demonstrating good teaching methods and providing additional audio-visual materials;

c) assisting in curricular reforms through speedy and effective delivery;

d) improving survival rates at all levels by motivating pupils through interesting programme materials using developed audio-visual techniques and enabling teachers to devote more time to individual attention in large classes;

e) assisting in the teaching of subject areas where trained teachers are in short supply, e.g. science, mathematics and technical and vocational subjects;

f) promoting civic consciousness and national unity through civic programmes at both the primary and secondary levels and through the use of Bahasa Malaysia following the phased introduction of Bahasa Malaysia in English language medium schools;

g) disseminating information of educational interest to parents and keeping teachers up-to-date on curricular innovations and practices through World of Education programmes; and

h) assisting in teacher training programmes, both pre-service and in-service, through employment of new media techniques.

Organization and Implementation:

The EMS Division now consists of 3 sections, each with its own sectional head: an ETV Section, an Educational Radio Section, and an Audio-visual Aids Section.

1. ETV

The 1975 weekly ETV telecast time was 34 hours and the number of programmes was 30. The programmes cover science, mathematics, civics, Bahasa Malaysia, English and commerce for both primary and lower secondary classes. There is also a World of Education programme beamed to teachers and parents. In 1976 it is planned to increase the number of programmes to include Sixth Form programmes in physics, chemistry and biology.

2. Educational Radio

At present the Educational Radio Service broadcasts 40 hours weekly. There is a total of 64 programmes for pupils from Standard I to Form VI. Coverage is in subjects, mainly the humanities, not covered by ETV. The aim in the assignment of subject areas to ETV and Educational Radio is to avoid duplication. The two broadcasting media are planned to complement each other.

3. Audio-Visual Aids

The AVA Section has roughly 3 functions:

a) production of support materials for ETV;

b) provision of support materials for Educational Radio; and

c) provision of audio-visual aids services, e.g. film library, tapes service, advisory service and training of teachers and officers from other Government Ministries and Departments in the use of audio-visual techniques. The AVA Section also produces films, film strips, teachers' handbooks, etc., for general dissemination and use. Its programme is, however, somewhat limited because of financial constraints. Where there is difficulty in dissemination, the policy is to disseminate the know-how rather than actual teaching/learning packages.

The EMS and Curriculum Development:

1. The EMS and the Curriculum Development Centre (CDC)

The Educational Media Service collaborates with the CDC in producing ETV/Educational Radio programmes and in developing and producing curriculum materials, pupils' learning materials, audio-visual aids and prototype teaching and learning equipment. The account which follows will, however, direct attention mainly to the contribution of ETV/Educational Radio to curriculum development.

2. Subject areas

One of the national objectives in the Second Malaysia Plan is to give emphasis to science and mathematics. Thus ETV has concentrated its programming efforts on these two subjects. In science, curriculum development is centred on the introduction of integrated science and Nuffield science; in mathematics the introduction of modern mathematics. The introduction of integrated science and modern mathematics has been rapid and handicapped by:

a) shortage of teachers trained in integrated science and modern mathematics; and

b) shortage of school laboratories and equipment.

3. Contribution of the broadcast media to the integrated science and modern mathematics programmes.

The broadcast media have helped in:

a) disseminating information on integrated science and modern mathematics to teachers and parents (who grumble because they have found themselves unable to help their children in their mathematics);

b) speedy delivery of lessons;

c) partially helping out with the lack of teachers trained in integrated science and modern mathematics; and

d) helping to ease the problem of shortage of school laboratories and equipment.

4. Problems

Two problems are singled out as typical of problems encountered by the broadcast media in curricular innovations and practices:

a) Integrated science approach

Basically emphasis of integrated science is on the discovery approach. Can ETV do this successfully?

b) Constant change in curricular development

Programme production is expensive and time-consuming. Constant revision of course items and lack of agreement among curriculum developers can produce extreme irritation to broadcasting media personnel and vice versa.

Production Problems:

As may be expected, the Malaysian experience has uncovered numerous problems in programme production, particularly in ETV programmes. A few of the problems are put in the form of open questions:

a) Should ETV producers be also subject specialists? Apart from salary grades, promotion prospects, etc., and in spite of having subject panels and subject advisory committees, Malaysia has had some difficulty in this respect. The non-subject specialist producer frequently is severely handicapped, e.g. in the production of language programmes. On the other hand, real subject specialists are scarce and are not likely to remain long as producers because of remuneration and organization structure.

b) What is the best way to ensure a good steady supply of scripts? Should script writers be full-time or part-time? Practical experience has shown that script writers can run dry after half a dozen scripts. On the other hand, part-time subject specialists are not likely to be interested in script-writing because of the nature of the fees and also these subject specialists may not have the necessary media experience. Malaysia has tackled the problems of subject-specialist producers and scriptwriters by having for each subject area a non-specialist producer plus a subject adviser.

c) Interesting programmes versus programmes relevant to subject area - which should have priority? Professional broadcasters stress "interesting" but educationists are more likely to give priority to "subject relevance".

d) Direct teaching programmes or enrichment programmes? Enrichment programmes are very nice and interesting, but can a developing country afford the luxury? Frequently enrichment programmes, in attempting to achieve too much, have produced little positive results. On the other hand, total direct teaching through the broadcast media is not possible unless the Government has great courage and is willing to spare no expense.

Utilization and Evaluation:

a) Response

ETV programmes have been well received since the launching date of June 1972. The feedback has shown a unanimous opinion from headmasters and teachers that the ETV service is useful. The problem now is constant requests for more and more programmes, including questions as to why primary programmes are not also telecast in Chinese and Tamil. Complimentary responses, paradoxically enough, can also raise problems. The answer here is obviously production capacity and limited air time. With the new media the problem can often be overexpectation, i.e. the broadcast media is often expected to do too much and to be able to solve all problems. Pressure can come not only from the public but also, curiously enough, from educationists.

b) Utilization and Evaluation Courses

To ensure effective utilization, EMS has conducted regular in-service courses and workshops to provide training in the handling and maintenance of equipment and in the use of ETV/Educational Radio programmes and audio-visual aids. To date several thousand teachers have been trained. The in-service training programme is still continuing and the educational technology component in the teacher training college syllabus has been revised and strengthened to provide adequate media training for new entrants to the teaching service.

Source: "The Educational Media Service Project", Malaysia - A Case Study.
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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: NEPAL

EIA No: 66

No: 4

Date of issue: July 1976

Title: CURRICULUM IMPLEMENTATION BASED ON THE PRINCIPLES OF NATIONAL SELF-RELIANCE AND REGIONAL CO-OPERATION

Background:

The Government of Nepal launched a new National Education Plan for 1971-76. In this connection, among others, a Curriculum Development Centre was set up and charged with the responsibilities of developing curricula for primary and secondary schools, and the planning and organizing of its implementation.

Since its inception in 1971, activities undertaken by the Centre cover formulating new curricula and teaching units, designing and trying out curriculum materials and making curriculum evaluation studies. The Centre is one of the three associated by the Government of Nepal with the Asian Programme of Educational Innovation for Development (APEID), which is designed to promote and support educational innovation in Asia and to co-ordinate innovative efforts and facilitate the flow of information and materials relating to educational innovation.

In 1975, the Asian Centre of Educational Innovation for Development (ACEID), in collaboration with the Government of Nepal and the Curriculum Development Centre, organized a Mobile Team Workshop on Curriculum Development which may be regarded as an innovative approach to curriculum implementation.

Under this programme, the Government of Nepal would offer the facilities necessary for the visits and for the training of other cadre of nationals. This was accepted by the Government of Nepal in order to enhance the national capacities for curriculum implementation.

Problems:

In implementing the new curriculum which was developed in accordance with the new National Education Plan, major problems facing the curriculum implementors are as follows:

i) resistance of supervisors and teachers and other curriculum personnel to accept and adopt new concepts and practices;

ii) inadequate preparation of curriculum personnel and those who are concerned with curriculum implementation, particularly supervisors and teachers;

iii) shortage of finance which prohibits the use of instructional materials envisaged in the curriculum implementation.

Objectives:

This project is intended:

i) to provide the staff of the Curriculum Development Centre an opportunity to observe and discuss the curriculum development projects in selected Asian countries which are related to their field of interests, and which are conducted under similar financial constraints as in Nepal;

ii) to train the cadre of Nepalese educators in curriculum designing and implementation, utilizing the experiences and insights gained through the aforesaid study visits.

Project Design:

The design of the project consisted of 4 phases of activities namely:

i) Inter-country visits: In this phase a team of five Nepalese educators visited Curriculum Development Centres and projects in India, Sri Lanka and Malaysia, where they observed, discussed, exchanged views and participated in the programmes of curriculum development.

ii) Planning of the In-country Training Workshop: This phase comprised the drafting of a planned programme based on the educators' experiences, experiences during the study visits, the objectives of the workshop, and the target population.

iii) Preparation for the In-country Training Workshop. In this phase the necessary administrative activities were carried out; training materials were designed, tried out and evaluated; the training programme was re-evaluated and modified in the light of available information.

iv) The In-country Training Workshop: The design of the Workshop was to train supervisors and primary school teachers who were engaged in implementing the new curriculum. The modality consisted of 3 phases of activities, namely, a) the Orientation Phase which aimed at developing in the participants a broad understanding of the National Education Plan and new concept of primary education; b) the Operation Phase in which the participants developed their own instructional materials; and c) the Follow-up and Evaluation Phase in which the participants evaluated the Workshop and recommended future activities.

Implementation:

In implementing the project, several activities were undertaken before, during each phase of the project design and after the completion of the project.

1. Preparatory Work

i) A proposal was made to the Government of Nepal to undertake the project and to select the five educators to form the Faculty of the Workshop.

ii) In consultation with the Government of Nepal, the following countries were selected for visits by the educators: India, Sri Lanka and Malaysia. The three countries were consulted and concurrences of their Governments were sought. Names and curriculum vitae of the educators were sent to the three countries to be visited.

iii) ACEID in co-operation with the Curriculum Development Centres of the three countries planned the programme of visits.

iv) Documents on the project were prepared and supplied to the educators such as General Information Paper, information on Curriculum Development Centres in the three countries, information on some of the projects to be visited in the three countries, and Daily and Weekly Report Forms.

v) Miss Kamala Peiris, Director of Education, Curriculum Development Centre, Sri Lanka, was selected to act as a consultant to the Workshop.

vi) ACEID designated a curriculum specialist to organize the study visits and to accompany the team during the visits. Another specialist in science education was also assigned to accompany him during the In-country Workshop Phase.

vii) Travel arrangement was made and schedule of visits was prepared and sent to the team before they started their trip.

2. Inter-country Visits

i) Educators undertaking the visits:

The five educators who form the Faculty of the Workshop are:

Mr. Gopinath Sharma - Co-ordinator of Curriculum Development Centre, Team Leader

Miss Sashi Maya Shrestha - Assistant Co-ordinator of CDC

Mr. Ramananda Mishra - Social Studies Specialist of CDC

Mr. Biswa Nath Aryal - Nepali Language Specialist of CDC

Mr. Bal Krishna Shrestha - Mathematics Education Specialist of CDC

The team accompanied by one ACEID staff member visited Curriculum Development Centres and projects in India, Sri Lanka and Malaysia from 11-29 August 1975. They spent about one week in each country.

ii) Procedures used during the visits:

The following procedures were adopted:

a) The team discussed the kind of experiences they would like to gain during the visit to the project; the questions which should be asked and activities which each of them would like to undertake by himself/herself.

b) During the visit the team would either be together or divide themselves into smaller groups. Discussions were usually focused on the topics of their interests.

c) Each day after the visit the team would get together in the evening to assess their experiences and each member would write the daily report.

d) After the visit in each country which took about one week, the team would meet to assess their experiences during the visit and prepare a weekly report.

iii) The Projects visited:

India - National Council for Educational Research and Training (NCERT): a) Teacher Education Department; b) Department of School Education; c) Department of Social Science and Humanities; d) Department of Science Education; e) Sales Wing, Publication Department; f) Department of Textbooks; g) Education Reform Units (I and II).

Sri Lanka - a) Curriculum Development Centre; b) Ministry of Education and Department of Technical Education; c) In-service training of Master Teachers (English) in Kandy; d) In-service training of teacher educators in Galle.

Malaysia - a) Curriculum Development Centre; b) Ministry of Education and Schools Division, Technical and Vocational Division, School Health Unit; c) Labour Department; d) Lan Development Project at Trolak; e) Agricultural Institute.

iv) Highlights of the visits:

The following are the projects which were regarded by the educators to be of high value. In their opinion the projects were both innovative and transferable.

India - a) Production and evaluation of textbooks; b) Production of science kits; c) Programme for the improvement of teacher education; d) Community education programme through non-formal approach; e) Programme for the evaluation of practice teaching; f) Programme of practical examination in science subjects; g) Item banks (collection of test items - full test, unit test, individual test, etc.); h) New educational scheme of 10 + 2 with emphasis on vocational education.

Sri Lanka - a) In-service training programme for Master Teachers and teacher educators; b) In-plant training programme; c) Informal education through non-formal approach; d) Training programme for school leavers; e) Integrated science programme; f) Rural development programme; g) Evaluation of student progress to determine the strength and weakness of the curriculum; h) Population education project; i) Integration of educational activities with those of Health Department and of the Rural Development Projects.

Malaysia - a) Methods and materials in science education; b) Women's Training Centre; c) Skill training programme of Labour Department; d) Reading materials for primary school students; e) Resource Centre at CDC; f) Production of low cost instructional materials; g) Land development programme including skill training for settlers and their children.

Planning of the In-country Training Workshop:

After the study visits the team came to Bangkok and worked in the Unesco Regional Office for 5 days from 30 August to 3 September 1975 to draft a plan for the In-country Training Workshop. They were assisted by the consultant and ACEID staff members. The draft design of the in-country training workshop which was prepared covered the objectives, modality, methods of presentation and expected outcomes. The main emphasis was given to the operational phase which involved supervisors and teachers in actual development of teaching materials and in having first-hand experiences in the use of innovative teaching methods in classroom situation. All participants would have the opportunity to work in practical situations successively involving the main content areas of language, mathematics, social studies, and health education specified in the National Plan for this level. The grouping would allow for 6-7 persons for each group, helped by the Faculty, the consultant and ACEID staff.

After discussion among the Faculty, the consultant and ACEID staff, the draft plan was tentatively accepted as suitable for submission to the Ministry of Education, Nepal, for final approval.

Preparation of In-country Training Workshop:

This phase of activity was undertaken from 4-13 September 1975 during which time the Faculty and the consultant worked together in the preparation of the Workshop. The preparation for the Workshop comprised two aspects: i) activities which had already been initiated and mainly administrative in character; and ii) activities both academic and administrative that needed to be undertaken on return of the Faculty to Nepal for the efficient running of the Workshop. Working papers and training materials were prepared by the staff of the CDC with the help of the consultant. All other administrative details were carried out by the CDC and the Ministry of Education.

In-country Training Workshop:

The Workshop was held at the Nepali Adarsa Secondary School in Pokhara City from 14 September to 3 October 1975. Thirty-two supervisors and five primary school teachers were selected to participate in the Workshop. At the initial stage of the Workshop time was spent on preparing the ground work for the main objective of developing teaching-learning sequences in special subjects later on. There was an illustrated presentation designed to bring into focus the perspectives of primary education all over the world at present. The shift of emphasis in the broad objectives was analysed and discussed in the context of developing countries. An attempt was made to give the participants an awareness of the psychological background of children at the primary level of education at their stages of cognitive development which had to be taken into account in developing learning materials. For this purpose a practical session followed at which the participants worked in groups and discussed the educational uses to which locally available materials such as wood, leaves, stones, etc., could be put in helping children to learn through activity methods. This was supplemented by a slide show to illustrate how activity methods had been used very widely in meaningful work at the primary level in a developing country. The show gave rise to a discussion of what was seen in the slides and its applicability in the context of Nepal.

During the Operation Phase the participants were first trained how to develop 'doing' questions leading not merely to passive knowledge but to active search for knowledge. These 'doing' questions were developed on one subject. Later on the group members were trained to develop lesson plans in social studies, Nepali language and mathematics based on the textbooks and the curriculum guides, using the techniques which had previously been discussed. Before the actual lesson plans were developed, the participants were exposed to having direct experiences in working with children. Each of them worked with two children, directing the attention of the children to things of educational interest in the environment, and learning at first hand what activities were above the level of cognitive development of children of this age-group.

In preparing the lesson plans the participants formed themselves into six groups, and each group worked out the lesson plan for a unit from the curricula for each of grades 1, 2 and 3. The format of the plans was proposed to comprise the following topics: i) title; ii) concept to be developed; iii) objectives; iv) activities (by teacher and children); v) materials; and vi) evaluation.

During the Evaluation Phase there was an illustrated presentation of the concept of evaluation of children's performance. This was followed by the consideration of classroom procedures at which a suggested guide was presented and discussed with the idea of improving it and making it practicable.

The last session of this phase was devoted to the evaluation of the Workshop. The participants were asked to answer a questionnaire. They recommended follow-up work to be undertaken in future.

Inputs:

Unesco provided all travel expenses and per diem for the five educators and made a contribution of US$1,000 for local expenses of the Workshop. One ACEID staff was assigned to accompany the team during the inter-country visits, and was later joined by another staff for the period of the Workshop. One consultant was also provided to assist the team in the planning, preparation and the conduct of the Workshop. Nepal as the host country was responsible for most of the local expenses incurred in holding the Workshop.

The technical inputs in the form of materials were provided by the Faculty and the CDC staff, such as the National Development Plan, the Primary School Curriculum, textbooks for social studies, Nepali language and mathematics for grades 1-3, study reports on the utilization of resources; write-ups on experiences of study visits and several other working papers and training materials.

Performance and Impact:

Two major events are evident in the conduct of this Workshop:

i) Training of the participants in designing courses, surveying local resources, drawing up lesson plans based on the use of local resources to achieve the objective laid down in the curriculum plan.

ii) Development of national capacities in curriculum building through participation of the CDC staff, the supervisors, teachers, district officers, teacher training personnel, and officers in the Ministry of Education such as textbooks officers.

The participants considered the Workshop to be a very successful one and recommended that similar activities be extended to other regions of the country. The Ministry of Education has since decided to utilize the new approach to implement the new primary school curriculum in other regions and has also decided to follow the same approach for secondary education at the lower secondary schools, i.e., studying of the experiences of other countries and holding of the national training workshop for curriculum innovation and staff training by doing. This has an impact in terms of the objectives for other levels of education and is likely to influence the activities in other programme areas and of other countries participating in innovations.

The experiences were discussed during the Third Regional Consultation Meeting at which the approach was regarded as useful, and it was decided that APEID should use similar approach and method of operation in programme areas other than that of curriculum development.

Key Innovative Features:

1. A systematic design to strengthen national capabilities in terms of personnel, skills in curriculum implementation, promoting self reliance, involving broad-scale participation in curriculum implementation and promoting the utilization of experiences of other countries.
2. Emphasis on self-learning by the educators and the participants of the National Workshop to improve their own practices.

3. Emphasis on the activity approach to classroom instruction.

4. Utilization of available local resources as materials for instruction.

5. Emphasis on the use of national and local expertise in curriculum development.

Source: Final Report: Curriculum Workshop, Curriculum Development Centre, Ministry of Education, Nepal

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: ____
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Country: PAKISTAN

EIA No: 67

No: 4

Date of issue: July 1976

Title: SCIENCE EDUCATION PROJECT (S.E.P.)

Background:

Most of the teacher training colleges and institutions all over Pakistan are poorly provided with equipment which is not only of the classical type but also obsolete as far as modern trends in the professional preparation of science teachers is concerned. Thus with a view to upgrading and modernizing teacher training laboratories in Pakistan, this project was started in June 1971 at the Institute of Education and Research, Lahore, Pakistan.

Objectives:

Overall

i) To set up a model Science Education Centre in Punjab [illegible] a pioneer resource centre with modern facilities for laboratories in physical science, biological sciences for science teachers and science education specialists;

ii) To act as a nucleus for dissemination of information regarding experimental testing and development of promising new ideas for improving instruction in science and development of supplementary teaching aids to increase the effectiveness of instruction.

Specific

i) To develop special laboratories for training physical science and biological science teachers;

ii) To develop science curriculum laboratories;

iii) To develop inquiry-oriented experiments, demonstrations, teachers' guides, students' workbooks, transparencies, film strips and film slides in physics, chemistry and biology for grades 1-12.

Project Development:

A special teacher training programme with science education as an emphasis area was introduced in the Institute of Education and Research in September 1971. Science teachers are being trained here both in content and pedagogy. The emphasis in the new training materials developed is on laboratory investigations which are followed by discussion sessions. Materials in elementary science for grades 6-8 and in physics, chemistry and biology for grades 9-10 (age 14-16+) are being developed. New materials are being tried out on M.Ed. final year students (teachers with at least three years' teaching experience) during their terminal activity known as Practicum at the Institute as well as at the Education Extension Centre, Lahore.

The project is presently under field trial at the Institute of Education and Research, Lahore. After successive field trials, the implementation phase will follow.

Evaluation:

The effectiveness of the materials was evaluated internally. A preliminary try-out regarding the effectiveness of discovery-type experiments in physics and chemistry was made during an in-service education course for the science teachers.

A comprehensive questionnaire was distributed to teachers who participated in this preliminary try-out from all over Punjab, out of which 60% responded completely, 20% responded partially and 20% did not respond at all. Fifty-six per cent of the respondents favoured the discovery-type experiments as given in the experimental edition of the book "Discovery Experiments in Physics/Chemistry". The reasons cited for their preference were that discovery experiments develop creativity, interest, curiosity and are thought-provoking. These experiments were liked by the respondents because they felt that these types of experiments develop an ability to use science in everyday life and encourage students to work for themselves. Nineteen per cent of the respondents liked these experiments because they were interesting, while 25% did not favour these experiments because they felt that in the existing system of examinations in Pakistan, more time required for such experiments would not permit these practicals to be conducted properly in the schools.

Outcomes:

Science activities for children of grades 1-5 in accordance with the modernized science syllabuses produced by the Ministry of Education have been developed. A teaching kit for students of grades 1-5 has been prepared in the subject of science. The production of teaching materials/laboratory kits (inquiry type) for modernizing educational technology in Pakistan, is also in progress.

Source: Country Report presented to the Regional Meeting on the Trends and Problems in Science and Technology Education in Asia, 1976.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PHILIPPINES EIA No: 68

No: 13 Date of issue: July 1976

Title: AN APPROACH TOWARDS INDIVIDUALIZATION OF INSTRUCTION

Background:

The idea of individualizing instruction in the Ateneo Grade School was initiated by Fr. Rodolfo Malasmas, Headmaster, in the summer of 1972. In a post-observation tour report to the faculty, he spoke of the possibilities of individualized instruction, which he had observed in schools in the U.S.A., Europe, and Japan. Thinking that this instructional process would improve learning experiences for the students, he pursued the idea during the school year 1972-1973. Towards the end of the school year, a decision was made to conduct an experiment on the Individualized Instruction (I.I.) approach by adapting it to the nuances and constraints of the school setting. The experiment began during the school year 1973-1974, involving grade II and grade IV classes in reading and mathematics.

Objectives:

The project aims to experiment an indigenous scheme of individualization of instruction within the framework of the school's objectives of quality education and integrated personality development. Through this scheme, the Ateneo Grade School hopes to provide education that is geared to every individual so that all his potentials would be drawn out to the fullest; to develop in each student positive self-concept, traits of independence, initiative, creativity; to develop skills in valuing and decision-making; and to provide an orientation in lifelong education.

Implementation:

The project was launched during the school year 1972-1973 with an information drive aimed at bringing the idea to the consciousness of the teachers. During this information stage, faculty in-service sessions on the subject of individualized instruction (I.I) were held; representative teachers were sent to observe classes in schools that employed I.I, and they reported their observations to the faculty. A bibliography of I.I. materials in the campus libraries was prepared for the teachers' use.

The second stage involved an experimental study in reading and mathematics, in the second and fifth grades. Reading and mathematics were chosen because these are skill subjects and because materials are easily accessible in the subject areas. The experiment sought answers to the following questions:

1. Is academic achievement in reading and in mathematics greater among students who have been provided with individualized instruction than among those who have not been provided with individualized instruction?

2. Do students who have been provided with individualized instruction exhibit enhanced self-concept than the students who have not been provided with individualized instruction?

To answer the foregoing questions, experimental and control classes, one pair in grade II and another pair in grade V, equated in I.Q., in age, in general average, in reading and in mathematics grades were formed. Pre-tests were given in July to determine the base-line of the matched groups. To determine the differences in gains, if any, between the classes using I.I. and the non-I.I. classes, post-tests were given in February. The result of this experiment is presented below under "Performance and Impact".

The third stage was a pilot try-out scheme using the improved experimental design used in Phase II. This was undertaken during the school year 1974-1975 involving pilot team classes in reading and mathematics in every grade level with the help of volunteer teachers. The other teachers who are involved in the pilot team classes had individualization of instruction in reading and mathematics in their respective classes. In short, the I.I. approach was tried out in all grades in varying intensity and methodology.

For the school year 1975-1976, the Ateneo Grade School is trying out the scheme on a larger scale. Volunteer teachers in all grades are asked to try the scheme simultaneously. At the end of the school year, there will be an evaluation of the various experiences and, hopefully, out of this will emerge a model that will meet the needs of the school. Thereafter, the school hopes to have a school-wide adoption of the scheme but limited only to the skill subjects, namely, mathematics and language arts. This is so because it is believed that some subject areas are better taught in large-class situations such as social studies and religion, while other subjects are not.

Inputs:

The senior staff members of the project include some key members of the school staff, with the headmaster and assistant headmaster as over-all director and assistant director respectively. Assisting them are the research director, consultant and the I.I. secretariat.

A variety of materials ranging from software such as books, self-learning kits, teacher-made materials to hardware such as films, filmstrips and other resources at the Instructional Media Centre of the school, was made available to the project.

₱ 40,000 was set aside from the school budget for this project, ₱ 25,000 for the experimental phase and ₱ 15,000 for the try-out phase.

Management:

The project involves key members of the school staff with the headmaster as director. Assisting him are the assistant headmaster as assistant director, the research consultant, I.I. secretariat, resource persons and the instructional staff composed of head teachers, classroom teachers and students in the eight grade levels.

Problems and Constraints:

The problems and constraints which might affect to some extent the type of I.I. that the school will finally evolve are the following:

1. The Jesuit philosophy and goal of the school - academic excellence requiring the maintenance of a certain "standard of excellence" based on minimum basic requirements in the programme of studies - runs counter to the philosophy and goal of individualized instruction.
2. The prescribed curriculum of the Government which is basically a lock-step or graded organizational set-up with a system of promotion from one grade level to another based on achievement of a set body of knowledge and skills is the opposite of the non-graded scheme and continuous progression.
3. The school has limited resources at present, while individualized instruction requires considerable investments in materials and equipment.
4. There is also a problem of personnel limitation. Although the present teacher-student ratio in the school is 1:33, the school is planning to reduce this ratio further which will mean more expenses for the parents. In the meantime, the school is studying the use of volunteer paraprofessionals such as teacher-in-training or parent aids.
5. The school feels that its present physical environment is not ideal for giving full scope to individualized instruction. However, it is trying to make do with what it has to minimize expenses.

Performance and Impact:

As mentioned earlier, an experiment was conducted in the school year 1973-1974 which sought answers to questions relating to self-concept and to academic achievement in reading and mathematics in grades II and V students who participated in the experiment. Pre-tests and post-tests were given, using standard tests and self-concept scale. Also, an open-ended questionnaire was administered to look into how the I.I. was perceived by the students and parents.

The evaluation results revealed that the experiment showed no diminution of learning in either reading or mathematics. However, the big pay-off was in the area of self-concept (perception of oneself) and attitudes (independence, initiative, enthusiasm for learning), in which there were significant gains.

With regard to the students' attitude towards I.I., the students indicated that their positive reactions to I.I. are due to the following factors: individual pacing and flexibility, teacher's support, variety of materials and freedom from pressures. The students indicated that their negative reaction to I.I. are due to the inappropriateness of some materials and nonindication of achievement in number marks.

The parents' positive reaction to I.I. is due to the following factors: better understanding of children by the teacher, feeling of confidence by the children who exhibit satisfactory progress in achievement. On the other hand, the parents' negative attitude towards I.I. was summed up as follows: high pupil-teacher ratio, absence of competition among the class members which could lead to lack of motivation and the need for some learners to be prodded or pressured in order to perform better.

In the light of the findings of the I.I. experiment, the Ateneo Grade School feels that it would seem wise for the school to venture into this instructional innovation.

Key Innovative Features:

1. The project developed an indigenous approach to individualization of instruction within the framework of the school's objectives of quality education and integrated personality development. Instead of just adopting the I.I. approach, the school developed its own scheme shaped by the different constraints and existing conditions within the school setting, such as the philosophy of the school, the prescribed curriculum of the government, financial conditions, personnel limitations and physical environment.

2. The I.I. approach involved the use of diagnosis-prescription type of teaching, individual progress records, teacher-pupil conference, criterion-referenced tests, flexible grouping schemes, co-operative teaching schemes and multi-text-material approach.

3. The project utilized the teachers' talent and expertise in the preparation and consolidation of learning tasks and also in the development of curriculum materials.

Source: "National Inventory of Educational Innovations"
Department of Education and Culture,
National Research and Development Centre for
Teacher Education
Manila, Philippines

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PHILIPPINES

EIA No: 69

No: 14

Date of issue: July 1976

Title: ELEMENTARY MATHEMATICS CURRICULUM DEVELOPMENT PROJECT

Background:

The project started informally in the early sixties with Filipino teacher-scholars returned from abroad and with the assistance of American Peace Corps Volunteers working in mathematics. It became a formal project in 1965 when the teacher-pioneers in the try-out of new approaches and materials clamoured for year-long curriculum programmes in the new mathematics.

The problems that the project was designed to meet were: (a) the deteriorating elementary pupils' achievement in arithmetic revealed by research studies; (b) teachers' lack of interest and competence in teaching arithmetic; and (c) the inability of available instructional materials to help develop mathematical skills and understanding in the school population.

Objectives:

The objectives of the project are identical with those of the curriculum materials developed. Fundamentally they are:

1. To create in the elementary school pupil an interest in mathematics by offering him exciting and challenging activities;
2. To develop in the pupil basic learning in the different areas of elementary school mathematics that will be permanent and functional;
3. To develop in the pupil a genuine understanding and appreciation of number and of the structure of numerical systems; and
4. To help the pupil acquire skill in computation and problem solving.

Complementarily, the project aimed to improve the professional and academic competence of the teachers and supervisors of elementary school mathematics.

Scope, Strategy and Implementation:

The elementary mathematics improvement project of the Bureau of Public Schools* consisted of two interrelated elements: preparation of new curriculum guides, and in-service training of supervisors, school administrators and teachers in mathematics.

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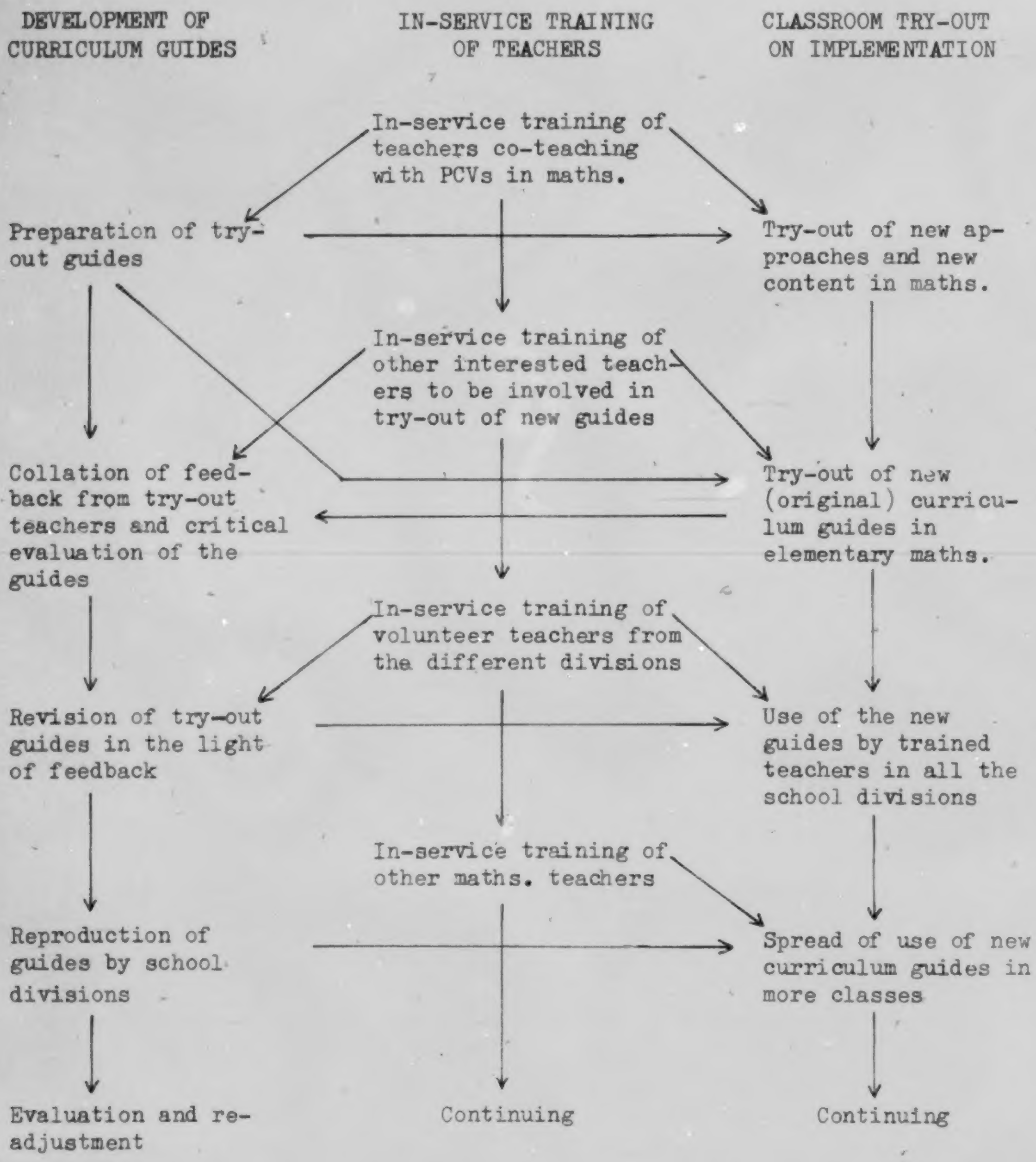
* now changed to "Bureau of Elementary Education"

The following chart shows the various activities under the project:


DEVELOPMENT OF CURRICULUM GUIDES
IN-SERVICE TRAINING OF TEACHERS
CLASSROOM TRY-OUT ON IMPLEMENTATION
In-service training of teachers co-teaching with PCVs in maths.
Preparation of try-out guides
Try-out of new approaches and new content in maths.
In-service training of other interested teachers to be involved in try-out of new guides
Collation of feedback from try-out teachers and critical evaluation of the guides
Try-out of new (original) curriculum guides in elementary maths.
In-service training of volunteer teachers from the different divisions
Revision of try-out guides in the light of feedback
Use of the new guides by trained teachers in all the school divisions
In-service training of other maths. teachers
Reproduction of guides by school divisions
Spread of use of new curriculum guides in more classes
Evaluation and readjustment
Continuing
Continuing

The project followed a developmental approach consisting of: (a) a preparation of try-out curriculum guides for teachers' use, followed by (b) a try-out of the curriculum guides by selected teachers in selected school divisions who sent evaluation feedback on the guides; (c) in-service training institutes for mathematics teachers in preparation for implementation of the new curriculum; (d) revision and finalization of the teachers' curriculum guides based on the feedback of the try-out teachers and on studies on the guides by the writing groups themselves; and (e) implementation of the new curriculum.

The field staff was encouraged to do innovative planning in order to have more effective and more humane (or less expensive) in-service training activities for teachers.

The implementation of the new elementary mathematics programme was laid primarily on the division mathematics supervisors in order to allow them freedom to innovate their own implementation programmes considering the resources and constraints of their respective set-ups, and to make them primarily responsible for the success or failure of the improvement programme in their respective divisions. To prepare them for the task, they were given one summer training on the new elementary mathematics - its philosophy, emphases, instructional approaches and content and occasional in-service training on the same.

The national office of the Bureau of Public Schools simply served as enabler by providing the field with the basic curriculum materials and by organizing leadership training programmes in mathematics.

All the school divisions now have teachers using the new curriculum guides, but the extent of their use varies from one school division to another, the conditioning factor being mainly the quality of leadership exhibited by the division, district and school officials in the implementation of the new curriculum.

Evaluation:

The evaluation of the project was part of the long-range plan. Before the reorganization of the Department of Education and Culture in July 1975, a grade IV achievement test was administered to random samples of children with four years of experience in the new mathematics. The results of the test, however, have not been finalized.

Outcome:

A specific outcome that may be claimed to have been achieved by the project is the growth of a more receptive attitude on the part of the teachers and school administrators towards the new elementary mathematics curriculum. In other words, the wall of "fear" of and/or indifference to mathematics that stood between the subject and the teachers has, in a large sense, been toppled down.

Source:

Country Report presented to the Regional Meeting on the Trends and Problems in Science and Technology Education in Asia, 1976.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PHILIPPINES

EIA No: 70

No: 15

Date of issue: July 1976

Title: SILLIMAN UNIVERSITY EXTENSION PROGRAMME: AN OUTREACH OF THE FACULTY, STUDENTS AND STAFF FOR COMMUNITY DEVELOPMENT

Background:

The socio-economic problems confronting the people in the rural areas like low income, poor health, malnutrition, lack of food supply, and poor living conditions are stimulative factors to the launching of the project in 1939 during a university seminar. It was partly developed as a community school extension project during World War II and strengthened in 1945. Early extension work primarily consisted of medicare services to the rural populace in Negros Oriental.

The entire programme in its present magnitude consists of different fields of community service, covering several towns and involving the participation of all colleges and departments of the University. Samples of the projects concern manpower training, cultural consciousness and appreciation, applied nutrition, conservation education, legal assistance to indigent litigants, community health and sanitation, social work, religious education, drug education, food production, agricultural extension classes, livestock dispersal, reforestation, medical services, family planning, child care, etc.

Objectives:

To make teaching-learning processes more relevant and useful through involvement in the development of the rural areas is the main objective. To attain this goal, the SU Extension Programme maintains pilot demonstration projects in rural communities, holds seminars and workshops related to various extension work and government economic programmes, and renders actual community services.

Implementation:

The initial steps taken to implement the project included the selection of the personnel who have the necessary knowledge, training, or experience in extension work and in preparing of proposals for financial assistance from local and foreign agencies. The project started from a small scale and was originally designed for a particular group of rural dwellers.

To carry out the project objectives, seminar-workshops, conferences, and field demonstrations were conducted in which the services of consultants, technicians and resource persons were employed whenever needed.

Manpower training sessions were and are still being held in pilot demonstration centres. It is planned in the immediate future to offer in the SU Graduate School a masteral course in Administration of Extension Work. The University Extension Programme (UEP) also envisions to train barrio workers to help in extension activities in their respective localities.

Inputs:

The UEP maintains and supports some twenty pilot demonstration/training centres and extension projects in scattered municipalities of Negros Oriental, holds display and pictorial exhibits, provides publications and library facilities, furnishes office supplies and materials, appropriates funds for extension services, and has three vehicles for extension work.

The SU has spent ₱234,500.- for salaries and wages of its personnel engaged in extension work. The Evangelical Central Agency for Development Aid based in Bonn, Federal Republic of Germany, gave ₱226,875.- for UEP's Project on Educational Development and Small-Scale Farming. Funds adding up to ₱1,000,000.- came from United Board for Christian Higher Education in Asia, the National Manpower and Youth Council, Commission for the Advancement of Christian Higher Education in Asia, Population Commission, and other funding agencies.

Dr. Angel C. Alcala, over-all administrator, Prof. Eduardo C. Lecciones, project director, and Mr. Nicholas R. Elman, assistant director, provide the direction, control and supervision over the entire UEP Programme. Each of the twenty on-going projects has its own officer-in-charge and the needed staff personnel and extension workers come from the different faculties and classes of the University.

Performance and Impact:

No formal assessment has been conducted to determine the impact of the UEP projects. Ocular inspection, observation and interviews, however, indicate very encouraging results and positive changes in the attitudes, habits, and vocational skills of the people in the service areas. For instance, citing the Reforestation and Livestock Dispersal Project as one of the twenty projects, this has reforested 378 hectares inside a 5,418 hectare area benefiting 66 peasant families, each of whom was given one or two beef cattle (heifers) to help raise their income. The project and the caretaker-family equally share in the offsprings. The shares of the project are in turn dispersed to other worthy co-operators. Through this procedure, about a hundred families are now beneficiaries of the dispersal programme.

Another example is the Agricultural Manpower Training Skills Project. Farmer co-operators are able to increase their farm income through poultry and piggery projects which they put up with the technical assistance of UEP agriculturists. The animals (chicks and weanlings) are supplied by the SU at nominal costs.

Key Innovative Features:

1. Direct involvement of university personnel and students in the socio-economic development of the rural areas through diversified integrated and co-ordinated extension services is the main feature of the programme.
2. A democratic pattern of management exists to ensure maximum co-operation of extension workers in the realization of project goals through group conferences.
3. Periodic visits and follow-ups are made by project heads for evaluation/assistance purposes.
4. Self-supporting and income-producing projects are launched to generate interest of co-operators and revolving funds for on-going projects.
5. Demonstrations, home visits, personalized progressional and technical services, and self-made instructional materials are utilized for better psychological and learning effects.

Source: "Inventory of Educational Innovations"
Department of Education and Culture
National Research and Development Centre for
Teacher Education
Manila, Philippines

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Classification: (for the use of receiver)

Country: SINGAPORE

EIA No: 71

No: 5

Date of issue: July 1976

Title: A CASE STUDY ON EXPERIMENTAL AND DEMONSTRATION SCHOOLS OF THE INSTITUTE OF EDUCATION, SINGAPORE

Background:

In order to bring theory closer to practice and to learn more about the behaviour and problems of children in school, the Institute of Education, with the permission of the Ministry of Education, adopted, early in 1974, 17 primary and 2 secondary schools as experimental or demonstration schools. The experimental schools serve primarily as a base of operations for the improvement of teaching and learning, while the demonstration schools serve mainly as centres for the dissemination of innovative ideas and practices in the education of children.

In terms of staff and other conditions, these schools are in no way different from the average primary or secondary school in Singapore. There are no handpicked staff, no special facilities provided and no special types of children enrolled. The schools generally serve the population of the area in which they are located; thus, some are located in relatively rural areas of Singapore, while others are in middle and working class housing estates. Some of the primary schools use English as the main medium of instruction; others use Chinese, while the rest are bilingual, i.e., they have both English and Chinese or English and Malay streams. The two secondary schools are bilingual as well as bilateral i.e. there are academic as well as technical streams.

Objectives:

The primary objectives of the experimental and demonstration schools are:

1. To serve as "laboratories" for investigating and strengthening the bond between theory and practice in education;

2. To foster co-operative action among school staff and Institute staff in common areas of concern such as curriculum development, the development of resource materials for teaching and the improvement of teaching methods and approaches; and

3. To promote the dissemination of innovative ideas in teaching and learning school subjects through (a) setting up specific resource centres; (b) regular workshops; and (c) informal staff discussions.

Implementation:

During 1974 and 1975, the staffs of the Institute and of the experimental and demonstration schools undertook a variety of projects in order to pursue the above objectives. The staff of the Mathematics Department of the Institute, for example, began a project to investigate the problems of mathematics education in secondary schools. Other members of the Institute's staff began to renew their own practice in the teaching of school subjects through periods of attachment in the schools. The schools' staffs attended in-service courses on educational evaluation, child guidance, remedial reading, and the teaching of English, Chinese, mathematics, science and physical education. During the period January to April 1976, several principals of experimental and demonstration schools attended an in-service course on educational measurement and educational research methods.

Impact:

The series of projects in the schools as well as staffs' exchange of views have generated an awareness of problems and of alternative solutions to them. Professional involvement and development, and the need for keeping abreast of new ideas, have also been promoted. In turn, both the staff and pupils of the schools have benefited from having special resource centres set up in their schools.

Specific Features:

1. It is intended that each school will eventually develop its strength in one particular area of teaching so that it becomes a resource centre from which help in the form of materials, demonstration and advice can be given to teachers in other schools. The following resource centres have so far been set up or are in the process of being set up: science, English language, education for living (a school subject integrating civics, history and geography), mathematics, physical education, Chinese language and remedial reading.

2. Since September 1974, the Guidance Clinic of the Institute of Education has been conducting a pilot project to introduce student counselling in three primary schools and one secondary school. The clinic staff visit the schools regularly to conduct counselling sessions for school children referred by their teachers for various behavioural and emotional problems. To date, the clinic has received more than 100 referrals for counselling.

3. Staff of the experimental and demonstration schools have produced more than 80 instructional tapes on the teaching of reading, English language, Chinese language, mathematics and science. These instructional tapes are freely available to other teachers who may wish to borrow them.

4. The staff members of schools have also set up various working committees for school subjects. These committees meet regularly to share experiences, exchange new ideas, and to discuss possible solutions to problems that arise in the course of teaching specific school subjects.

Source: Institute of Education, Singapore

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)
Country: SRI LANKA
EIA No: 72
No: 3
Date of issue: July 1976

Title: CORRESPONDENCE TEACHER EDUCATION PROGRAMMES

Background:

In 1970 there were in Sri Lanka 37,982 professionally unqualified teachers. This number, which amounted to more than one-third of the total number of teachers in the country, included graduate, certificated, uncertificated and pupil teachers. It was estimated that of this number at least 25,000 would remain in active service for 15 to 20 years. The majority of these untrained teachers taught in primary and junior secondary schools spread throughout the country.

Since the backlog of untrained teachers could not be cleared by training them in Teachers' Colleges, it was imperative that the Ministry of Education should organize a correspondence and on-the-job training programme in order to upgrade these teachers professionally. It was also felt that the professional training of all teachers in service was a pre-requisite for the vast curricular reforms that the Ministry intended to introduce in the junior secondary education from 1972.

The IBRD report on educational projects for which Sri Lanka had asked for aid had also indicated, in no uncertain terms, that correspondence training was necessary to clear the backlog of untrained teachers. The Education Minister's proposal to set up a Correspondence Education Unit was approved by the Cabinet of Ministers on 3 July 1971. The Unit was set up in the Ministry of Education towards the end of 1971, and in January 1972 the correspondence course for general teacher education was started. This was the first non-profit, government-sponsored correspondence education programme in Sri Lanka. In March 1973, a two-year correspondence course leading to the Diploma in Education was started for graduate teachers by the Correspondence Education Unit in collaboration with the University of Sri Lanka.

Objectives:

The aims of the correspondence course in teacher education are:

1. To upgrade the untrained non-specialist teachers professionally in the subject content they have to teach so as to meet the demand for teachers qualified to handle the new junior secondary curriculum introduced in 1972;

2. To provide graduate teachers with opportunities for obtaining a higher-level diploma in education in collaboration with the University of Sri Lanka;

3. To inculcate the idea that teachers should continue to grow professionally; and

4. To consequently raise the level of education in schools.

Special Features:

Two correspondence courses were set up in Sri Lanka: i) correspondence course for general teacher education; and ii) a two-year correspondence course leading to the Diploma in Education.

i) Correspondence Course for general teacher education

a) Enrolment

Teachers in service and with a full secondary education are selected to follow this course. As many as 2,467 teachers were enrolled in the first batch in 1972. A second batch of 960 and a third batch of 617 were enrolled in 1973 and 1974 respectively. The number enrolled in the course in 1975 decreased to 112 indicating that the greater number of these teachers have now enrolled themselves in correspondence or institutional courses.

b) The study programme

This correspondence course in general teacher education is of three years' duration and during that period it covers more or less the same academic and professional work as a two-year course in general teacher education in a teachers' college. Teachers enrolled in the correspondence course study three subjects each year, thus covering the nine subjects of the course in three years. At the end of each year they sit for the teachers' college final examination in the three subjects studied during that year. Thus they sit for the same examination as those who follow the institutional course. Those who fail in one or more subjects in any year are allowed to sit for the examination in those subjects again during the following years. On the satisfactory completion of professional training and examination requirements, these teachers are awarded the Trained Teachers' Certificate which improves their prospects of professional advancement and entitles them to the same salary scale as those who follow the institutional training course.

Correspondence lessons in the three subjects studied during the year are posted to the students once a term, i.e. three times during the year in sets of 10-12 lessons. Thus 30-36 lessons are sent in each subject. The lessons are self-contained, but books are prescribed for individual reading and assignments suggested for individual work.

c) Face-to-face meetings

For the purpose of short-term, face-to-face meetings and on-the-job training, these students are affiliated in small groups to a teachers' college in close proximity to the school where they teach. Each student must attend one week's residential vacation course twice a year at the affiliated teachers' college. At these face-to-face meetings teachers' college lecturers act as discussion leaders at seminars where common problems and more important topics in the course are discussed. The entire cost of the course including the supply of meals to the trainees and the payment of an honorarium to the lecturers is met by the Correspondence Education Unit.

In addition to the residential courses, these teachers also attend a minimum of 10 hours of week-end classes each term at the teachers' college with which they are affiliated. These classes are held on Saturdays and Sundays and are non-residential. No free meals are provided and the trainees bear their own expenses.

During the last year of the correspondence course, each trainee is given on-the-job training and guidance in teaching by teachers' college lecturers at schools affiliated with the teachers' college. They also conduct the final evaluation of teaching practice of these teachers.

During the second and third terms each year, for the benefit of these trainees, discussions on important topics are given over the radio by the Correspondence Education Unit, in collaboration with the Education Service of the Sri Lanka Broadcasting Corporation. In these discussions the more important topics and problems dealt with the correspondence lessons are discussed by a panel drawn from the academic staff of the Correspondence Education Unit. Each radio broadcast is of 15 minutes' duration and is broadcast twice a week.

d) The writing of correspondence lessons

The writing of correspondence lessons for this course is done by specially recruited writers drawn from among teachers' college lecturers and qualified teachers in schools. They are appointed or seconded for full-time or part-time work in the Unit. All writing of correspondence lessons is done under the guidance and direction of the principal of the Correspondence Education Unit. All lessons are also edited by editors highly qualified in the relevant subject field.

Each set of lessons is accompanied by a study guide and directions. The lessons are illustrated wherever necessary with line drawings, charts and tables. These illustrations are prepared by the writers themselves or the staff of the Correspondence Education Unit.

ii) The Diploma in Education correspondence course

The correspondence course leading to the post-graduate Diploma in Education of the University of Sri Lanka was begun in February 1973. This course is jointly conducted by the Correspondence Education Unit of the Ministry of Education and the University of Sri Lanka. The course is fully financed by the Ministry of Education through the Correspondence Education Unit which is also responsible for the administration of the course. The staff of the Faculty of Education of the University of Sri Lanka is entrusted with the teaching work involved in the course.

In 1973, 526 graduate teachers were enrolled in this correspondence course; 413 of them in the Sinhala medium and 113 in the Tamil medium. Those selected to follow the course registered themselves as external students of the University and paid Rs. 30.- as registration fee. These students also made an annual payment of Rs. 100.- to the Correspondence Education Unit for the two-year duration of the course, to cover the cost of printing and posting of lessons and residential seminars. These fees covered approximately half the total cost of this correspondence course. Enrolments in 1974 and 1975 were 521 and 472 respectively.

a) The Study programme

The Diploma in Education correspondence course is of two academic years' duration, during which these students do the same amount of course work as the students in the internal course in their one-year period. During the first year correspondence lessons in four subjects, namely, educational psychology, principles of education, curriculum and general methods and comparative education, are posted. In the second year correspondence lessons in measurement and evaluation, educational administration or guidance and special methods of teaching are sent out. Practice teaching is also done during this second year.

The preparation of correspondence lessons in each subject is the responsibility of a supervisor drawn from the academic staff of the University. Under the supervisor's guidance, lessons in each subject are written by two specially selected writers.

All aspects of academic work done by the University staff is co-ordinated by a senior University lecturer who becomes the course co-ordinator. He also maintains the necessary liaison with the Correspondence Education Unit.

Lessons in each of the four subjects studied during the year are posted once or twice a term to all students. These lessons are of either self-study or study-guide type. They contain questions for individual study as well as assignments which the students are expected to complete and return to the supervisors for corrections. Books are prescribed for reading and methods of study suggested.

Students are called upon to answer two assignments per term in each subject and send them to the subject supervisor. These are corrected by the lesson writers or the supervisors and returned to the students with written comments. At the end of each academic year these students sit for the Diploma in Education examination in the subjects studied during that year. Subjects in which a candidate fails could be repeated the following year. Upon the successful completion of the course, these students are awarded the Diploma in Education of the University of Sri Lanka.

b) Residential seminars

At least once a year students who have enrolled in this correspondence course attend a week's compulsory residential seminar at which University teachers act as lecturers and seminar leaders. These seminars are scheduled to coincide with university holidays.

At these residential seminars the students meet their lecturers and discuss their problems with them. Guidance is given in the different types of course work they are expected to do. Limited library facilities are provided at these seminars so that the students can do some reading and acquaint themselves with the books available on their subjects of study. In the evenings films on educational topics are shown.

c) Practice teaching

During the second year of the Diploma in Education correspondence course, all students are engaged in two months of practice teaching. In the case of students who are teachers in service, practice teaching is done in the schools in which they teach, while those in the education service are appointed to schools for these two months. The supervision and evaluation of practice teaching are done by master-teachers appointed for this purpose from among qualified teachers working under the Ministry of Education.

Source: National Inventory of Educational Innovations, Sri Lanka
Ministry of Education
Colombo 2, Sri Lanka

Contact person: Correspondence Teacher Training Unit
Ministry of Education
Colombo 2, Sri Lanka

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: SRI LANKA EIA No: 73

No: 4 Date of issue: July 1976

Title: INNOVATION IN THE MANAGEMENT OF NATION-WIDE EXAMINATIONS

Background:

The Ministry of Education of Sri Lanka has a separate Examinations Department, the main function of which is to organize and conduct public examinations for the Government. It is the sole examining body for the Government and conducts nearly 150 examinations a year. At present nearly a million people take these examinations annually.

The examinations conducted by the Department may be broadly classified into four groups:

1. Public education examinations
2. Recruitment to various services in the public service
3. Proficiency and efficiency bar examinations
4. Foreign examinations

Since 1966 the number of people taking examinations has expanded greatly. In 1966 there were 248,388 candidates for the G.C.E. (Ordinary Level) Examination; in 1975 there were 563,817 candidates. There were 3.3 million answer scripts at this level as each student could be tested in eight subjects. Since most of the subjects required traditional essay type answers, this further enlarged the number of examiners needed to a total of 10,000.

Objectives:

The examination system for the G.C.E. (Ordinary Level) Examination had many weaknesses. In particular, three main areas needed innovative change; they were:

1. Reliability and public confidence in the marking of answer scripts.
2. Speeding up the reporting of examination results.
3. Quicker payment to supervisors, invigilators and examiners.

Under the previous system packets of answer scripts with detailed schemes of marking were despatched to marking examiners. Each was entrusted with about 300 scripts. He was required to meet with his chief examiner at the outset in order to understand and familiarize himself with the standard agreed upon. At two stages 10 answer scripts selected at random were re-examined by the chief examiners - once at the beginning of the marking and once at the completion of marking of answer scripts. The examiners were expected to complete the marking of the answer scripts within about 35 days. There were a few instances of examiners being observed doing their work in buses, trains and other public places and certain instances of unauthorized and incompetent persons being engaged by the examiners to assist them in their work. These few instances received very wide publicity so that a new scheme to regain public confidence in the assessment of answer scripts was needed.

The results of the G.C.E. (Ordinary Level) Examination held in December were normally released in May-June of the following year. The marking of answer scripts commenced in January and went on until about the middle of May. Since all the answer scripts were first received at one central place in the Examinations Department in Colombo from several thousand examination centres and were then despatched to individual examiners, there was a considerable delay in the 'turnaround'. Sometimes answer scripts received in the Department in December could not be despatched to examiners until about March. The individual marks were received in the Department commencing in March. Since the processing of the results was computerized, the individual marks received in the Department were key-punched on 80-column punch cards. The key-punching of the millions of marks took nearly three months and the results could be released only in late May or early June.

The 1973 G.C.E. (Ordinary Level) Examination required nearly 15,000 supervisors and invigilators to man the examination centres and 10,000 examiners to mark the answer scripts. The supervisors and invigilators were paid a flat rate and the examiners were remunerated on the basis of the number of answer scripts marked. The payment of these two categories of persons usually took several months, since individual pay vouchers needed careful scrutiny in processing. The need to receive the signature of the certifying officers for each of the 25,000 vouchers was another reason for the delay in the payment of these vouchers.

Implementation of Project:

A scheme called 'conference marking' of answer scripts was evolved to enhance public confidence and reliability in the assessment of answer scripts. Under this scheme examiners in groups of 20 assembled and attended to the marking of answer scripts under conference conditions directly supervised by a chief examiner. A new organizational set-up was necessary to function in this manner. The answer scripts from each examination centre were despatched to eight collecting centres set up in the principal towns. These collecting centres were manned by officers of the Examinations Department. Each collecting centre had a few marking centres, called evaluation centres, attached to it. The necessary scripts for each evaluation centre were supplied through the collecting centre.

The 3.3 million marks of some 420,000 candidates were made available to the Department about three weeks after the conclusion of the examination. Had the previous system been continued, it would have taken nearly three months to key-punch and verify the 3.3 million marks. Such a delay would have been not only unreasonable but also unfair to the candidates and the examiners. The country would never have excused such an undue delay. Therefore a study of modern data processing systems was initiated and a new system utilizing mark-sense cards was installed. Mark sensing is a technique designed to create punch cards automatically with pencil marked data.

The new system of data processing has the following advantages:

1. Improved processing schedule. By eliminating the need to key-punch, the data could be processed in a very short time.

2. Security and secrecy. The cards were marked by the examiners themselves and there is no need for any other person to handle the mark sheets.

3. Greater accuracy. Errors that occur during key-punching due to bad handwriting, etc., were eliminated as the examiners who prepared the mark sheets themselves marked the cards.

Payments to the staff conducting the examination and marking the scripts were made centrally. This required payment to nearly 25,000 persons. A new system of group payment to the various officers was designed. Under this scheme, payment to invigilators was made through the centre supervisors, and the payment to the individual marking examiners was made through the chief examiners. Here the payment was made through a composite pay sheet. A cheque for the total amount due to the examination centre or board was sent to the supervisors or chief examiners. By arrangement with the postal authorities the cheque was drawn in favour of the postmaster-general. At the local post office, the supervisors or chief examiners would obtain money orders for amounts due to individual invigilators or examiners. This system enabled the Department to pay nearly Rs. 5 million to 25,000 officers within about seven weeks and in strict conformity with government financial regulations.

Impact of the Project:

This new examination scheme received public approval. Public confidence in the fairness and accuracy of examinations was enhanced since the marking of answer scripts took place under strict supervision. The improvement in the quality of assessment was significant. With the chief examiner available on the spot, any doubt regarding the scheme of marking could be easily clarified. Thus there was a constant feedback taking place during marking and no instances of careless marking were detected.

Marking went on for about 10 days. What used to take nearly three to six months under the earlier system could be completed within about 10 days or two weeks after the conclusion of the examination.

The early release of results had the following principal advantages:

1. It enabled heads of schools to prepare their programme of work and time-tables and to plan for adjustments of teaching personnel early in the school year.

2. It reduced the incidence of indiscipline in many urban schools where large numbers of pupils 'awaiting results' were previously unable to settle down to serious study.

3. It enabled people who failed the examination to settle down to a full 10 months of preparation and study for the next examination. It also enabled the successful students to get on with grade XI studies.

4. Since the candidate population was large and embraced almost every household, there was a wide-spread feeling of anxiety and concern until the release of results. The reduction of this suspense period was a matter of great relief to many parents.

The expeditious payment of dues to examination staff has placed the Examinations Department in a very advantageous position in being able to receive the assistance and the co-operation of the large mass of teacher population in most of its activities. In addition, the financial saving in the administrative costs of individual payments to examination staff has been estimated to be substantial.

The innovative features of the G.C.E. (Ordinary Level) Examination have been incorporated into other examinations offered by the Examinations Department.

Key Innovative Features of the Project:

The key innovative features of the project may be summarized as follows:

1. Conference marking of answer scripts;

2. Expeditious processing of examination results;

3. Group payment to examination staff.

Source: "National Inventory of Educational Innovations, Sri Lanka"
Ministry of Education, Colombo 2
Sri Lanka

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: SRI LANKA EIA No: 74

No: 5 Date of issue: July 1976

Title: IN-PLANT TRAINING AS AN EXTENSION TO PRE-VOCATIONAL STUDIES UNDER THE JUNIOR SECONDARY PROGRAMME

Background:

An initial attempt at providing factory training to school children was made at the Veyangoda Spinning and Weaving Mills in 1972. The innovative nature of the project had impressed the Hon. Prime Minister so much that she commended it to the Ministry of Education as a scheme meriting attention. The present In-Plant Education Scheme draws its inspiration from this original project. The main objective of the scheme is to impart basic industrial skills to students and instil in them realistic attitudes to the world of work.

Objectives:

The objectives have been formulated, keeping national needs and aspirations in mind. The motivating factor has been the spirit of the new educational reforms.

The objectives of the project are:

1. To enable students to participate in the national development programme by actually working in a productive organization and to acquire a sense of self-reliance and self-confidence;
2. To introduce the child to the world of work and foster a sense of dignity of labour, thereby developing favourable attitude towards it among future administrators, technologists and other workers;
3. To serve as an extension of the pre-vocational studies programme;
4. To develop the ability to apply school learning to practical situations and at the same time enable the children to adjust to a new environment;
5. To provide an initial familiarity with development projects for the Higher National Certificate of Education (H.N.C.E.) level of education.

Making every student aware of in-plant education is the overall objective of the programme.

Specific Features:

In-plant training as envisioned by this scheme will be confined to grade VIII students. In consultation with factory management and school principals, it has been decided to limit every group to 20 students. Preference is to be given to those students who are highly motivated towards their pre-vocational studies. A six-month period of training was considered sufficient in the present circumstances. The students would undertake two hours of work at the factory outside school hours.

1. Pilot Project Stage I

The first year of field testing was meant to serve a rather small group. Only seven pilot schools from four educational regions were drawn into the project. The second stage of the pilot project, from January 1976, is intended to cover all 26 educational regions in the country. This would include a much bigger sample of students.

The seven projects, inaugurated in 1975, continue to be operated by the In-Plant Unit of the Curriculum Development Centre as model projects. They are being expanded to include three to five schools per factory. Stage I of the pilot project has been completed and an evaluation report published.

2. Pilot Project Stage II

The project is now being taken into its second stage. The In-Plant Unit is working in close liaison with the Regional Directors of Education to expand the scheme. The idea is to decentralize the organization and hand over full responsibilities to the Regional Offices. Getting the programme on a sound footing would necessitate numerous visits by officers of the In-Plant Unit in an attempt to share their experiences.

Success at this stage will depend much on sound organization and close supervision and guidance from field staff.

Implementation:

The In-Plant Education Unit of the Curriculum Development Centre was set up under a Director of Education in early 1975 with a staff of four who worked full-time on the pilot project.

A plan was drawn up to open seven in-plant centres during the course of that year.

The majority of the centres was concentrated in or near Colombo for practical reasons. This enabled the Curriculum Development Centre staff to visit the centres frequently for observation and evaluation.

The strategy adopted was to organize one centre at a time on a systematic basis. As a preliminary measure a survey was carried out of the factories in the area. The final selection included factories from both the public and private sectors. The management in each instance was very amenable to innovation.

The school selected for the project was in the immediate neighbourhood of the factory. This was done solely for the convenience of students and the teachers supervising the projects.

Reports were drafted of work areas in the factory suitable for students of this particular age-group. It was essential that these areas be free from industrial hazards. Various work processes were meticulously selected in collaboration with faculty personnel. It was only after this preliminary ground-work was completed that the decision to open an in-plant centre was made and Ministry sanction obtained.

Records have been maintained at every step of the pilot project, providing vital information and data necessary for effective evaluation.

Content of the Project:

The students acquire selected skills during a six-month period working two hours weekly.

Small groups of students work in rotation at different work processes generally for about two months at each task. Once they have mastered a special skill, they move over to another task. For instance the batch of 20 students working at the Ceylon Leather Products Corporation are dispersed in smaller groups of six or seven in the selected areas down the assembly line. They shift from one area to another after about two months once the factory superviser is satisfied that they are nearly as skilled as adult workers. Resource persons in the factory are responsible for training and guiding the students in this aspect of the work.

The core content of the course is common to students working at different centres. The following aspects are covered:

(a) The role of the factory/agro-industry/or other productive unit in national development;

(b) The source of raw materials;

(c) The destination of the finished products;

(d) Management levels in the factory;

(e) The different sections of the factory, its layout, the work process in the assembly line;

(f) Use of basic technology;

(g) Factory discipline;

(h) Application of scientific and mathematical processes learnt at school;

(i) The life of workers in a factory, and their problems;

(j) Simple economics determining production;

(k) Quality control measures adopted.

Inputs:

The Pilot Project Stage I was conducted at very little cost to the department. The In-Plant Education Unit at the Curriculum Development Centre comprising a Circuit Education Officer and three teachers was directly supervised by a Director of Education. This Unit functioned during 1975. During Stage II of the pilot project in the educational regions, the Regional Directors of Education will be in charge of the proposed plan for their respective areas. They will be helped by at least one officer who would be assigned special duties relating to this subject at the Regional Office. The pre-vocational studies teachers in the selected schools, their principals and other teachers who may be interested in the project will be responsible for implementing the project. The In-Plant Unit staff will co-ordinate the work done in the regions and collaborate with the regional staff whenever called upon to do so.

Problems and Constraints:

In implementing this project, the Curriculum Development Centre was faced with a few problems in the early stages. In 1973 and 1974 a few experiments in in-plant education were carried out in a number of factories, but the students were not well motivated and had no clear idea of the objectives. They joined the project thinking that it was some form of vocational training and that at the end of the course they would receive employment in the factories where they worked. The factory managements were averse to this attitude on the part of the students and gradually the interest in the project waned and it came to a standstill. This early experience was of great advantage to the In-Plant Unit when it was assigned the task of revising the project. Younger students were selected and were briefed clearly on the objectives before being sent to work in the factories. This alteration in the original plan was very welcome and seems to be the main factor that helped in the successful implementation of the Pilot Project Stage I in 1975.

Great care has to be taken in selecting processes of work which are completely free from any industrial risks or hazards. There is no special insurance scheme for students.

Impact:

In-plant education has added a further dimension to the junior secondary school programme. In some of the schools involved in this project, it was fortunate that the subjects already chosen for pre-vocational studies were directly linked to the work in the factory. But even where there was no such direct link, the students gained in numerous ways by working in a factory environment.

The continuous evaluation of the project which was carried out by the In-Plant Unit shows that the specific objectives were achieved.

As for the general objectives, it was found that those aspects which can be assessed in the short term have been achieved.

Apart from the gains by the students, the positive impact on the workers, the factory management, the community and also the school itself has been considerable.

Key Innovative Features:

The following may be listed as the key innovative features of the scheme:

1. The modern world of industry and the school are brought together in a joint educational undertaking which is to their mutual advantage.
2. The students discover the processes by which modern industry creates wealth. They acquire a creative discipline and a sense of dignity of labour. They discover what opportunities there are for self-employment in their own environment.
3. The factory becomes less of a ghetto. Workers and management enjoy the opportunity of meeting the younger generation and are stimulated by the natural enthusiasm of youth.
4. The students learn skills that will enable some of them to set up agro-industries in their own areas.
5. Migration to the cities in search of work will be discouraged as a result.
6. A new awareness of their worth as future citizens will begin to dawn on students, and they will be more willing to do their share in developing the country.

Source: "National Inventory of Educational Innovations, Sri Lanka"
Ministry of Education
Colombo 2
Sri Lanka

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Despatch No. 2-76

EIA Nos. 75-95

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: INDIA

EIA No: 75

No: 10

Date of issue: December 1976

Title: NATIONAL SCIENCE TALENT SEARCH

Background:

Considering the significant impact of science and technology on the process of national reconstruction, it becomes imperative that the country should be capable of producing high caliber scientific and technical personnel. The terminal stage of secondary education seems to be important for spotting talented scholars and setting the foundations of future professional career.

In order to identify academically bright students in basic sciences at the end of the secondary stage, the National Council of Educational Research and Training (NCERT), through its National Talent Search Unit, formulated an exhaustive All India Scheme in 1965, known as the "National Science Talent Search Scheme." This early identification, however, will not only mean clear-cut encouragement to the bright students but will also fulfil a well-defined national objective of education concerned with the fostering of talents.

Under this scheme, a suitable number of scholars are awarded scholarships from the first year of the B.Sc. courses up to the end of the doctorate level. A pilot project was conducted in 1963, and 10 scholars were selected for the award of scholarships and certificates of merit. From 1964, this scheme was extended all over the country and an All India competition is held annually. The main tools of selection are designed by the National Talent Search Unit with the help of the academic staff of the various universities in India.

After the identification of a set of promising students from all over the country, the main aim remains to nurture their abilities in the best possible way. This requires creative thinking and certain other accepted and well-defined practical steps. From July 1966, the problems connected with placement, follow-up, appointment of individual guides and organization of accelerated courses were taken up.

Objectives:

The main objectives of the scheme are:

i) to identify boys and girls, at the end of the secondary stage, who possess a marked aptitude for science;

ii) to stimulate scientific talents by a competitive process and recognition on merit;

iii) to help such students to pursue courses in basic sciences by the award of scholarships from B.Sc. to Ph.D. stage;

iv) to provide special programmes in science to such scholars, with a view to nurturing the talent in the best possible way;

v) to encourage schools to take more active interest in the search for scientific ability; and

vi) to help build up a body of future scientists who will contribute to the scientific advancement, both in pure and applied science.

Implementation of the project:

The programme seeks to assess pupils' aptitude for science; their powers of scientific reasoning, skill in scientific experimentation, and awareness of the basic nature of science; ability to apply knowledge, analyse and interpret scientific data, and express scientific concepts clearly and precisely; creativeness and mental alertness in the investigation of the scientific phenomena; knowledge about the recent developments in the various branches of pure and applied science; and skill to devise and develop some original ideas experimentally.

Thus, it is evident that this national scheme has been designed to fulfil an important need of the country, i.e. to provide basic scientists to the various national laboratories, universities and allied institutions. The industry will also ultimately benefit through the academic network of this scheme.

Performance and impact:

The examination is held at 350 centres of examination throughout India. Science teachers have developed modern techniques of evaluation, and seminars and workshops are organized all over the country to acquaint them with the preparation of such instructional materials as may be helpful to the development of scientific creativity in children mainly at the secondary level.

The items introduced in the various evaluative techniques are analysed and the difficulty value of various items together with their discriminative values is worked out each year as part of a research project. A statistical analysis has indicated that the reliability of the objective test and the correlations between various evaluation techniques used in this scheme are sufficiently positive and high.

The curricula in the various state boards as well as in the Central Board of Secondary Education have been upgraded in the light of the findings based on an analysis of the data available for the past decade. There has been a very crucial problem of locating talent from the rural areas, and for that purpose the publicity of the scheme, along with new evaluative techniques, has been stepped up. A scheme of rural talent search at the secondary level has also been designed recently which will give an opportunity to the children from rural areas to get good nurturing programmes, specially in the area of basic sciences.

Resources:

All the finances connected with this scheme are obtained from the Ministry of Education and Social Welfare, Government of India, through the NCERT. The selection of the personnel in this Talent Search Unit has been based on carefully chosen criteria which have been developed by the NCERT. There are persons with adequate knowledge in the fields of science, technology, psychometry, statistics and guidance and counselling.

In-service training of teachers:

A number of summer institutes are organized by the Department of Education in Science and Mathematics of the NCERT to upgrade the knowledge of science teachers and give them an opportunity to develop scientific creativity so that they may adopt better methods of teaching and look after children with scientific aptitude. The National Talent Search Unit also organizes from time to time such training programmes and seminars for secondary school teachers.

Evaluation:

The work of the National Talent Search Unit has been evaluated from time to time by experts from all over the country. Scientists, educational administrators, research workers have made their own evaluation about this national scheme, and if their assessment is found to be of far-reaching national importance, necessary changes are made in this national scheme from time to time.

The original scheme of providing quality for higher education in basic sciences has succeeded to a great extent, but many awardees leave the basic science courses half way to join professional educational courses like engineering and medicine. To overcome this, the NCERT is contemplating to extend the scope of the present National Talent Search Scheme to such areas as engineering and medicine also. Since social sciences and humanities are also important areas of academic studies, the NCERT is planning to institute some scholarships in these areas also.

Comparative studies have been taken up by the Unit, specially with regard to the work done at the Westinghouse Science Talent Search Scheme of the United States of America and of the Mathematical Olympiads conducted in the Union of Soviet Socialist Republics. There has been considerable affinity between the present national scheme and the two international schemes mentioned above. Another talent search scheme in the area of science was instituted several years back at Calcutta and is now titled "Jagdish Bose National Science Talent Search Scheme".

Innovative features:

The experiment conducted under the National Talent Search Scheme has been very useful because many new techniques of evaluation have been adopted to locate the prospective creative genius (with the use of various techniques of evaluation like the science aptitude test, essay paper, project report and a highly structured interview). This is the first time an experiment has been tried out by combining various new features of evaluation. Their effectiveness has been highlighted through the high reliability and adequately good validity. A number of follow-up techniques have been tried out with the utmost precision and effective results.

Source: Case study prepared by the National Council of Educational Research and Training, New Delhi, India.

Contact organization: National Council of Educational Research
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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: INDIA

EIA No: 76

No: 11

Date of issue: December 1976

Title: NON-FORMAL EDUCATION FOR THE AGE-GROUP 6-14

Background:

A large number of drop-outs in the age-group 6-14 years is posing a big problem to the educationists and educational planners. Most of the drop-outs have relapsed into illiteracy. The reasons for dropping out are economic, social and educational, but most of the children drop out because of poverty.

The Central Advisory Board of Education (CABE) discussed the issue and concluded that the drop-outs might find it difficult to come back to the formal school system because of its rigidities in terms of a fixed time-table, curriculum, examination system, etc. To achieve the target of universalization of primary education, the CABE recommended the provision of education to drop-outs through part-time courses by using the non-formal approach so that they are able to join class VI or IX in a formal school, as the case may be. The CABE stressed that such a scheme could be profitably adopted in phases in all the States and Union Territories.

In 1974 the National Council of Educational Research and Training (NCERT) started a Non-Formal Education Centre in Bhumiadhar Village in the Bhowali Block of Uttar Pradesh. The work was started on a pilot project basis so that the experiences gained through this programme may be helpful to the different States in the effective implementation of this scheme.

Objectives:

The main objectives of the programme are:

i) to relate education to community development; and

ii) to organize part-time instructional programmes for such children in the age-group 6-14 years who have either not gone to schools or dropped out at one stage or another before completing the education up to class VIII, to enable them to join a regular stream in class VI or IX in a formal school.

Special features:

One of the special features of this Non-Formal Education Centre is that it is located at a place where there is a high concentration of drop-outs and that it caters to the needs of children who mostly belong to the scheduled caste families.

To start the pilot project, a survey of the Bhowali and Bhimtal Blocks was done in May and June 1974. It was found that Bhumiadhar Village of the Bhowali Block is most suitable because in this village there are more than 250 scheduled caste families, and 98 children in the age-group 6-14 years are drop-outs. The land is not fertile and there is scarcity of water. Each family has a small plot of land, but the produce from the cultivation of this plot is insufficient. The majority of the people are labourers who have to go at a distance [illegible] 10 kilometres for their daily-wage jobs.

For generations this community has been living in poverty, and this is the major reason for the drop-outs. These children have to help their parents in their occupation as well as domestic work.

In this village there are two schools, one for girls and one for boys. The girls' school is up to class VIII and has four teachers and the boys' school is up to class V and has two teachers. But the number of children in these schools is very low.

Community development programme:

One of the important features of the programme is that educational activities are closely linked with community development activities. After a survey of the village had been conducted, a joint meeting was held with the community leaders, community members, agriculture experts, community development officers, U.P. State Department Education Officers, teachers, health education experts, Harijan Social Welfare Officer, etc. From the discussions it appeared that the members of the community are so poor that they can hardly afford to send their children to school. These children are also required to help their parents in the domestic work. Keeping all these difficulties of the community members in view, it was decided that under this pilot project, education will have to be linked with community development.

Another important feature of the programme is that several alternative types of community development programmes have been worked out.

Some of the significant programmes of the centre aimed at socio-economic development of the community are:

1. The agriculture expert of the Bhowali Block has got the land of Bhumiadhar tilled at three places. A most appropriate and improved variety of man-made seed of wheat for the unirrigated condition has been tried out in the area. The drop-out children also took part in the work-operations. This gave double the produce.

2. Knowledge and skills have been provided to the community members and drop-outs for the cultivation of mushrooms. Large-scale attempts will be made for commercial purposes. Different agencies who deal in mushrooms are being contacted, so that the community members may send their products collectively to these agencies for sale.

3. The community members have been given demonstrations for the preparation of compost pits. About 40 compost pits have been prepared. The community members and drop-outs have recognized the utility of these pits both for manure and sanitation purposes. It is also being planned to get a gobar gas plant constructed in this area. The Van Mahotsva, a local festival, was observed to grow more trees in the surroundings. For this, 100 pits have been dug in the village. This will help to check land erosion.

4. Some pictorial materials on health and hygiene have been distributed to stress the importance of personal and social cleanliness in the community. For this, the help of health experts is being sought. Some filmstrips, film slides, posters, leaflets, etc., are being used for the community development programme.

5. The expert from NCERT has introduced ceramic work, tie-and-dye work and paper machinework in this village. The women and drop-out children have taken keen interest in these programmes. Sample materials have been prepared. This work is proposed to be undertaken on a commercial basis.

6. The Education Expansion Department of U.P. State Government has started motivational programmes through films and other mass media. This has developed motivation in the community for the education of their wards.

7. The veterinary scientists are helping the community members in the better rearing of their cattle. This will increase the milk production.

8. Books and other useful reading materials are being collected from various sources for the library of the Non-Formal Part-Time Education Centre which will be open to all the members of the community. Some demonstration materials will also be kept in this library. The teachers concerned and some volunteers and community leaders will help the community members to make full use of this library. For the illiterate community members, those portions of a book which may be useful for the community will be read out to them.

9. The community members have agreed that all their celebrations and other programmes will be held in the Non-Formal Part-Time Education Centre so that this centre becomes almost the community centre.

10. The help of some home science experts has been sought to assist the community members in developing the skills of preparing fruit juice, jellies and jams. This work can be done very easily by the women and girls.

11. The work of stitching and sewing has largely been started for the women and girls. The NCERT has given a sewing machine for this purpose.

12. Poultry farming is being started in this area; this will be beneficial to the community members, the Harijan Samaj Kalyan (The Depressed Classes Social Welfare Organization) has sanctioned a financial grant for this purpose.

13. At different intervals, meetings were held with community members including drop-outs to explain to them the value of education and need for sending the children to the Non-Formal Education Centre.

Starting the Non-Formal Education Centre

The drop-outs started coming to the Non-Formal Education Centre gradually within a couple of months. Most of these children were in the age-group 6-11 years. About 40 drop-outs have joined the Centre. The Centre is located in the building of the girls' school. The community members help in the repair of the building. Since the regular classes for girls are held from 10 a.m. to 4 p.m., the drop-outs come to the Centre in the evening. As such there is no difficulty.

The resources of the community and other governmental and non-governmental agencies are being mobilized for collecting work-experience tools and equipment for class-rooms. Arrangements have been made for providing mid-day meals to the children attending the Non-formal Education Centre. This has also attracted the children of this poverty-stricken area to join the Centre.

Two teachers of the regular school are teaching in the Non-Formal Education Centre on a part-time basis. For this part-time work they are being given additional remunerations. Some community members and officers of different organizations have come forward to help the children in getting the skills in various types of work-experiences.

Although most of the knowledge, skills, attitudes and value are being developed in the children of the Non-Formal Education Centre through work-experiences, instructional materials have been prepared for giving them some fundamental knowledge and skills.

Evaluation:

It is too early to make any proper evaluative study on the system. However, during the period of work for establishing the Non-Formal Education Centre for drop-outs in the age-group 6-14 years, some experiences have been gained which may be useful for some other centres of the country. These experiences are listed below in brief:

1. The high concentration of drop-outs is in poverty-stricken areas. For starting a programme of non-formal education for drop-outs in such areas in the age-group 6-14 years, it may be necessary to relate education to community development programmes and work-experiences.

2. At the initial stage the enlightened persons of the community and the community leaders have to be taken into confidence. They play a vital role in developing confidence among the community members for the education of drop-outs through non-formal approaches.

3. The level of attainment of the drop-outs becomes low. In this Bhumiadhar experiment reading tests for children who left school at different stages from grades I to V have been used. It was found that children who left school after class IV or V could pass only the grade II tests. In the case of children who left school after grade I or II, it was found that they had relapsed into illiteracy.

   The reading ability is closely related to attainment in different school subjects. For making homogeneous groups in terms of attainment level in a non-formal education centre, reading tests can be used. The teachers' judgement can also be useful.

4. Drop-out children can come to a non-formal education centre only during such hours when they are free from domestic work. Normally they are free in the evening. Some children may not come to the centre regularly. The teacher may have to visit the homes of some children at times to encourage them to come to the centre regularly. Sometimes he may have to escort the children to their homes in the night. The teacher may have to enthuse the community members for implementing the community development programmes which forms the base for his educational programme. The teacher has to keep proper records of the progress of the children and help them in their development. The success of all this depends upon the sincerity, devotion and commitment of the teacher. The success of a non-formal education centre therefore depends on the dedication of the teacher.

5. As regards the training of teachers working in the non-formal education centre, experience shows that such training can be given only on the spot. The theoretical lectures would not help. The teaching-learning process needs modifications according to the needs and conditions of the local environment; for example, a set of materials may be prepared in which there may be a number of things common for different environments, but these materials would need to be adapted for a particular environment as non-formal education has to be given on the basis of work-experience.

6. The education given in a non-formal education centre and in formal schools may not necessarily be the same although there may be much similarity in concepts, knowledge, etc. The technique of teaching in a non-formal education centre would be based on work-experience and hence it will give scope to children for learning to learn. They may have better functional knowledge although they may lack in literacy knowledge.

7. Autonomy may have to be given to schools or education officers for examining the children studying in non-formal education centres so that they may have the power to give certificates to children for passing grades V and VIII.

8. In India the primary schools are located at a walking distance of one kilometre from the home of the child.

9. The success of the non-formal education for adopting multiple entry depends upon the initiative and participation of the community and voluntary organizations. Besides this, the co-operation of different governmental agencies, i.e. Education, Agriculture, Health, Social Welfare, is also very necessary.

10. A non-formal education centre may be started in a formal school so that it may gradually bring about change in the rigid approaches to formal education and make it more functional.

The success of the Bhumiadhar Project attained so far is due to team work of a band of workers from the Department of Health, Agriculture, Social Welfare and Education. The programme is in the process of trial. However, the experiences gained so far seem to be very promising.

Source: "Innovations in Education", National Council of Educational Research and Training, Sri Aurobindo Marg, New Delhi, India.

Contact Organization: National Council of Educational Research and Training
Sri Aurobindo Marg
New Delhi, India

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: INDIA
EIA No: 77
No: 12
Date of issue: December 1976

Title: VOLUNTARY RURAL DEVELOPMENT THROUGH EDUCATION

Background:

Established in 1931, the history of Vallabh Vidyalaya Rural Science Centre has been one of forty-four years of sustained experiments in voluntary rural development through education. Vallabh Vidyalaya is a complex of a number of educational institutions, namely, Balwadi (Pre-Primary School), Junior Basic School, Senior Basic School, Post-Basic School, Kanya Vidyalaya (Post-Basic-Girls' School) and the Primary Teachers' Training College. These institutions serve as unique centres of community service.

Objectives:

The main objective of the Vidyalaya is to bring about social and economic transformation through training in village crafts, village-life-centred activities and social service activities.

Special features:

An important feature of the Rural Science Centre is that it serves the Baraiyas and Patanwadiyas and other disadvantaged classes through education. Basic education through productive activity teaches the basic skills of work. Through the community life programme basic education teaches tolerance, responsibility, leadership, discipline, the importance of unity and the spirit of accommodation. The programmes of social service inculcates in its participants social awareness, the love for social work and the attitude of putting service before self. The boys who study in the Vidyalaya serve as catalytic agents and they are taught to convey to their parents the need to adopt improved methods of cultivation. Education of the students initiates a change in the circumstances of the families, not only in agriculture, but also in other aspects of their life, namely, domestically and socially. Direct services such as in health are also part of the overall rural development programme.

Since the independence of India the activities of the schools have been organized in the following pattern:

Balwadi (pre-primary): The noteworthy feature of Balwadi is the numerous activities which are life-centred. The children learn healthy and worthy habits. The programme develops their inborn capacities and allows recreation and enjoyment as well. Some children come from

Vidyalaya families and Rudel, a nearby village, but the majority come from poor families living in huts situated within one kilometre of the Vidyalaya. Breakfast is given to them free of cost.

Kumar Mandir (Students, Grade V to VII) and Vinay Mandir (Students, Grade VIII to XI):

Basic crafts are taught including spinning and weaving in Kumar Mandir and agriculture and cow rearing in Vinay Mandir. There are two hours of craft work daily.

Eight per cent of the students reside in hostels, where they get individual attention and guidance. They are required to do one hour of community work everyday. They do all the necessary work in the hostel and on the farm. They plan and execute their plot-work on the basis of scientific knowledge gained in a classroom setting. Elected student representatives share the responsibility of managing the affairs of the students' community. Emphasis is on joint co-operative effort among the students and the teachers. Development work in the form of constructing roads, arranging exhibitions, cultural programmes, various fairs and village cleanliness projects are frequent and well attended. Extra-curricular activities are included in order to develop the innate capacities of the whole individual, but academic standards are also maintained.

Kanya Vinay Mandir Bhalel: Education of girls centres around a home craft programme through which they are taught cooking, spinning and weaving, tailoring, embroidery, health and hygiene, kitchen-gardening, rearing of cows, up-bringing of children, and early childhood education work.

Primary Teachers' Training College: The college prepares students for the Primary or Basic Teachers' Training certificate. They learn the crafts of spinning and weaving. To prepare them for their role as social workers, the trainees are taken to live for a week in a village usually in the depressed areas. In these villages they teach under supervision in the local schools and apply progressive methods of education; the students also arrange educational exhibitions, prayer meetings, cultural programmes; they hold parent-teacher meetings and organize constructive work useful to the village, e.g. construction or repair of a road.

Adarsha Goshala: This school demonstrates modern methods of cow rearing including the cultivation of protein-rich fodder-crops. A project of preparing cross-bred cows has also been undertaken by the use of artificial insemination from Australian and Danish bulls.

A methodology of social change has evolved through experience at the school. The school attempts to serve as a catalytic agent in changing modes of farming and improving the lives of the farmers. Every year on an Annual Day former students and parents of the present students are invited to be present. The old students tell their experiences especially as to how they have benefited from their education at the Vidyapeeth. The parents tell how education at Vidyapeeth has changed their children and their own lives. A Sarvodaya fair is also organized. The main objective of organizing the fair is to propagate the ideals of Mahatma Gandhi through mass contact programmes such as meetings, discussions, mass spinning, exhibitions and cultural exhibits.

Evaluation:

The main impact of the centre is the changed outlook of the boys and girls of these schools and their involvement in social activities beneficial to the community. As regards the parents, they not only send larger numbers of their children to the schools, but they extend helping hands in terms of money, other resources and guidance in the planning of the developmental programmes.

Parents also have been able to eradicate some of the wasteful and unjust social customs which have made them debtors; the percentage of literacy has increased from about 20% to approximately 30% of the adult population; 50% of the alcoholics have given up drinking; opium addiction has also been reduced; destructive and prolonged quarrels show a declining trend and the thievery is less prevalent. The leadership and resources provided by Vallabh Vidyalaya have facilitated this change. Such a programme of education based on the community needs and aspirations has serious implications for other parts of the country.

Source: "Innovations in Education"
National Council of Educational Research and Training,
New Delhi, India

Contact organization: Vallabh Vidyalaya Rural Science Centre
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India

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: INDONESIA

EIA No: 78

No: 6

Date of issue: December 1976

Title: DEVELOPMENT SCHOOLS PILOT PROJECT

Background:

The project started in 1971 under the leadership of a "Committee of Eleven" with the Director General of Education as team leader. The starting point for this project was a "Basic Memorandum of the Minister of Education and Culture" on new ideas, structure and methodology of education. In July 1973, the responsibility for this project was transferred to the Chairman of the Office of Educational and Cultural Research and Development, by a Ministerial Decree.

There are four problem areas towards which this project is directed:

1. equal opportunity in education;
2. quality of education;
3. relevance of education;
4. efficiency of education.

The project was initially intended to develop a comprehensive school system called the Development School. The framework of this system was outlined in a Ministerial Decree. Before March 1973 the concept of Development School was planned for expansion throughout Indonesia in 1974. After a study on the status of the eight pilot projects in accordance with new policies by the late Minister of Education, it was clear that the concept needed revision through a systematic research and experimentation process. Thus, in August 1973 a Master Design of Educational Reform through the Development School was made by the Office of Educational and Cultural Research and Development together with other units of the Ministry of Education and Culture, and the heads and professional staff of the eight pilot schools. Development of the present project is along the lines of this Master Design.

Objectives:

1. To establish an efficient and effective educational system which would develop Panca Sila-minded men, healthy in body and mind; who are knowledgeable, skilful, creative, responsible and who possess a democratic attitude and noble character, who are dedicated to their people and love each other as stipulated in the 1945 Constitution.

2. To establish a primary and secondary education system which is:

   a) effective and relevant to the people's and individual's needs realized through relevant educational programmes;

   b) a basis for lifelong education;

   c) efficient and realistic in line with the financial ability of the people and the government.

   This project includes eight Development Schools Pilot Projects related to eight teacher training institutes. They are called Pilot Projects because they are meant to explore at the first stage, several innovative ideas to establish the level of effectiveness and efficiency after a systematic evaluation process prior to wider dissemination.

Scope and strategy:

The ultimate target population of this project will be all primary and secondary school children in Indonesia. At the experimental stage, about one thousand students of eight primary and eight secondary schools have been involved this year in grades I, IV, VI and IX. In 1976 the number of schools will be increased with several schools outside the Development Schools being used as sites of experimentation. The success at this stage will lead to suggestions and revisions necessary for nation-wide expansion of this programme.

Implementation:

Although the project officially started in 1971, operations did not start until 1972. After the Ministerial Decree which was a follow-up of the policy address of the Minister of Education and Culture at the National Education Day Celebration on 2 May 1973, the strategy of developing this project has undergone changes. In this connexion, in 1971-72 the BP3K made intensive studies of educational objectives that are relevant to the needs of the Indonesian people. Thus the model used by the project after 1973, apart from the basic concepts, is a series of educational objectives relevant to the people's needs and the national development programme.

This project will last until 1980-1981. By that time a complete picture of a new primary and secondary educational system will be obtained. In line with the policy of the Minister of Education and Culture, the expansion of project results will be done in stages. The project demands a continuous process of reform. The BP3K Chairman has stated that the development stages of the project in the framework of educational reform will pass through the following stages:

Stage	Period
1. Specification determination	1971-1974
2. Master design	1973-1974
3. Development of sections	1974-1977

Stage	Period
4. Design to improve sections	1975-1978
5. Overall assembling and testing	1976-1978
6. Elimination of existing difficulties	1979
7. Mass production of modules	1979
8. Preparation of consumers' "field"	1976-1980.

Outputs:

1. A master design for primary and secondary education reform;
2. A general plan of educational reform through the Development Schools;
3. A structure of the primary and secondary curriculum programme at the Development Schools;
4. Broad outlines of a primary and secondary teaching programme for mathematic, physics, language and social sciences;
5. Module tests for the four subjects mentioned in (4) for grades I, IV, VI and IX;
6. A teacher's training package to use modules;
7. Three hundred and twenty teachers and other educational staff trained to use the modular teaching system;
8. A guide for the administrative management of the Development Schools Pilot Project;
9. A programme evaluation instrument to evaluate the implementation of a modular instructional system;
10. A framework of an administrative system and class management in the implementation of teaching with modules.

The entire approach to the implementation of this reform is the systems approach. The content to be explored is the process of the entire school system with the curriculum as starting point, using the modular instructional system.

Personnel and finances:

School facilities are financed by the development budget. The staff consists of 10 professionals who design and control the project's activities. They are assisted by four main teams:

1. The Curriculum Planning and Development Team (including module writers) which consists of 40 Development School people and consultants from the Universities and Technological Institutes;
2. The Programme Evaluation Instrument Designing Team, which consists of 7 persons, including two consultants;

3. The Educational Administration Team which consists of 4 people, all from the Development Schools;

4. The Guidance and Counselling Team which plans and designs guidance and counselling programmes, consisting of 8 people.

The training is partly financed with funds from UNDP and Unesco.

The total expenditure for 1975/1976 of the Development Schools Project is Rp. 60,000,000 (US$ 144,578), while each Development School receives annually Rp. 20,000,000 (US$ 48,192). For fiscal year 1976/1977 this amount will increase to Rp. 180,000,000 (US$ 433,735) for expansion at the national level while each Development School will get Rp. 25,000,000 (US$ 60,240).

Management:

At the national level the project is managed by a Steering Committee with the Chairman of the BP3K acting as its Chairman, and the Project Leader as Vice-Chairman, concurrently Project Secretary. This Steering Committee formulates the first draft of the basic policies of the Minister of Education and Culture in the form of programme and operation plans. In implementing these responsibilities, the Steering Committee is assisted by the four teams. These teams together with the professional staff of the Development Task Force assists the BP3K Chairman (Chairman of the Steering Committee) in monitoring improvements of the programmes. There is also a coordinating body between the Development Projects and the Development Schools called the Coordinating Board of the Development Schools. Each Development School reports and gives its views based on experience in the field to the Coordinating Board, while the Development Project Board uses this opportunity to discuss the programmes to get a review and agreement for their implementation. This meeting is also attended by the top management of the Ministry and the Directorates, particularly the Directorate General of Primary and Secondary Education and the Directorate General of Higher Education, apart from BP3K personnel in order to get directives from the Ministry of Education and Culture.

Problems and constraints:

"Qualified" staff who have enough time for extensive contribution to the programme are few in number. Therefore, a working system has been designed whereby task forces meet periodically so that qualified staff can participate in addition to the limited permanent staff.

The comprehensive nature of the project demands many activities that require financing. The fact that permanent staff are difficult to find means financial expenditures which are sometimes not acceptable to budget planners who do not quite understand the essence of this innovative programme. Because of the entirely new scope of this project which has no precedent, unforeseen needs emerge and demand finances.

Up till now, there has been need to change the written objectives in the Decree of the Minister of Education and Culture. Experience gained from the implementation of this project suggests the need for continuous communication between programme designers and implementors as well as between programme designers and budget planners. An intensive and ongoing discussion of the essence of the work to be carried out among these three units is indeed important.

Because this innovative programme is only being tested in the field at the development stage in a limited number of pilot projects, it is premature to say what impact this project will have on the educational system as a whole.

Important and innovative aspects:

Extensive modular instruction in schools is innovative. Apart from the fact that it is unique in itself, the basis of the learning concept is also new in the Indonesian context, indeed in the Asian region. This is not to say that this concept has never been written or heard of. What is clearly innovative is to try out this concept in the school system as a whole for the entire school system.

Source: Seminar on Educational Innovation: Final report.
Office of Educational and Cultural Research and Development, Ministry of Education and Culture, Jakarta, Indonesia.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)
Country: INDONESIA
EIA No: 79
No: 7
Date of issue: December 1976

Title: LEARNING CENTRES: AN EXPERIMENT IN EDUCATIONAL REFORM

Background:

In 1971 World Education Inc. invited a number of functionaries from several countries in South East Asia, including Indonesia, to attend the "Consultation Meeting on Adult Literacy and Family Life Planning" in Bangkok. As a follow-up of that Meeting, the Centre of Family Welfare Communication Service (P2K3) was established in Jakarta. This Centre served as a clearing house for family welfare education, population education and planned parenthood. However, it was felt that there was a need to extend its services to the society by the establishment of community centres that could be benefited directly by the village society and people in town districts. These centres could better serve the learning needs of local communities in their environments. Hence, the "Learning Centre" pilot projects (PKB) have been established in five places: (a) Jakarta: Jl. Salemba Raya 18; (b) West Java: Desa Cibogo, Lembang; (c) East Java: Desa Johowinong and Desa Gudo; (d) South Sulawesi: Desa Pungoro, Pangkajene.

These "Learning Centres" constitute a type of out-of-school education which is related to:

1. On-going out-of-school activities, such as the Training Centre of Community Education (PLPM), carried out in Gudo and Jombang, East Java, and in Bungoro, Pangkajene, South Sulawesi;
2. Formal education activities, i.e. primary schools, carried out in Cibogo, Lembang, West Java.

Objectives:

The general objective of the "Centre of Family Welfare Communication Service" is to extend its service as a clearing house for family welfare education, population education and planned parenthood, so that it may serve as "Learning Centres" for the village society and people in town districts, and that at any time they can readily give educational service relevant to the learning needs of the local community.

The specific objectives are:

1. To implement educational programmes in family welfare, population education and planned parenthood for the local society;

2. To produce service materials for the three subject matters mentioned above;

3. To help find ways to adjust the administrative structure in implementing formal and out-of-school education.

Scope and strategy:

The target population are the young adults who are not in school, and who are within reach of the Learning Centres. The total cannot be expressed in exact figures, but it is estimated that they form 60% of the total population in a "Learning Centre" area.

Implementation:

The "Pilot Learning Centres" were planned for one year, beginning in mid-1973. The location was decided based on the following considerations:

1. The readiness of the community education personnel at a certain place to carry out the project;

2. The possibility of co-operation with the local Teacher Training Institute (IKP) in technical management;

3. The type of the community: (i) a big city community; (ii) a village community in the mountains; and (iii) a village community in the low plains.

The implementation preparations, formulated in the Jombang Seminar in September 1973, covered:

1. Development of the "Learning Centre" concept;

2. Visiting the sites for the Pilot Learning Centres;

3. Training prospective "Learning Centre" personnel;

4. Conducting a base-line survey;

5. Establishing a "Learning Centre" Advisory Board;

6. Drawing up an operational working programme and guidelines for "Learning Centres" personnel;

The techniques used by the "Learning Centres" in carrying out the task as a clearing house for family welfare, population education and planned parenthood, are:

1. Class-room instruction using audio-visual aids;

2. Lectures;

3. Group work, e.g. discussion and practical work;

4. Guidance and counselling;

5. Radio instruction through local stations.

The following results were obtained:

1. The "Pilot Learning Centres" have a place in the society. The interest of the community and its recognition are adequate, as evidenced by the utilization of learning opportunities and services available.

2. Educational programmes were carried out in an orderly way, though the quality of the following may be improved:

   a) the ability to read, wtite and count;

   b) the skills to improve family welfare for mothers and expecting mothers; and

   c) the understanding of population problems and planned parenthood.

3. Instructional materials for Family Welfare and Learning Centres in the form of bulletins, posters and for broadcasting.

It was planned for 1974/1975 that the five "Pilot Learning Centres" would be continued, but with a focus on one type of education only, that would be monitored and evaluated in a regular way.

Facilities:

Buildings and equipment were provided by the Directorate of Out-of-School Education, Ministry of Education and Culture, and its Inspectorates in the five "Pilot Learning Centres".

Manpower comes from: (a) the Directorate of Out-of-School Education for programming and supervision; (b) the Family Welfare Inspectorates for implementation in the field; (c) World Education Inc. for programming; (d) the Office of Educational and Cultural Research and Development (BP3K), Ministry of Education and Culture, for evaluation; and (e) the local Institute of Teacher Training and Educational Sciences (IKIP) for pre-service training and base-line survey.

Funding comes from World Education Inc. and the Directorate of Out-of-School Education.

Performance and impact:

1. "Learning Centres" have been implemented in line with PELITA II, Book III, p. 175, and most likely they can be further developed.

2. An administrative structure and method of working can be developed for the implementation of Learning Centres at institutions within the Ministry of Education and Culture, such as the Community Welfare Training Centre and the Primary School. For institutions beyond the jurisdiction of the Ministry of Education and Culture, such as the 'pesantren' (religious schools), this cannot be done yet.

3. The society in a "Learning Centre" area is more motivated to utilize the available learning opportunities, which are more flexible when compared with traditional courses.

4. The role of "Learning Centres" in the development of a village society has become clearer.

Important and innovative aspects:

1. The identification of the learning needs of the society within the area of a Learning Centre;

2. The adjustment of learning material of "Learning Centres" towards the needs of the local community;

3. The flexibility in the arrangement of study schedules;

4. The availability of "Learning Centre" personnel to give educational services;

5. The increased use of audio-visual equipment;

6. The existence of a permanent place to serve as a centre of educational activities for the local society.

Source: Seminar on Educational Innovation: Final Report. Office of Educational and Cultural Research and Development, Ministry of Education and Culture, Jakarta, Indonesia.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: INDONESIA

EIA No: 80

No: 8

Date of issue: December 1976

Title: VILLAGE COMMUNITY CONTRIBUTION TO PRIMARY EDUCATION

Background:

In finding a model alternative that may be applied to all villages, the element of similarity is in fact a supporting factor. The differences between villages call for an exploration to find various model alternatives, the application of which would very much depend upon the conditions of each village.

With regard to tradition, the villages in Bali show many similarities. In general, they are divided into two kinds: administrative and tradition villages. An administrative village is a group of people who have common ideals and objectives. It is led by a district head elected by the village people and then appointed by the government. This village head is called bendesa or perebekel. The village development activities are discussed and implemented by a body called Village Community Development. It is a place where prominent village people plan and implement village development. A tradition village is a unit of people who are bound by regulations made by the village community. Each tradition village has a unit consisting of a puradesa, a pura dalam, and a purasegara.

The village is led by the head of the village. In carrying out his work the village head is assisted by an association or "sekehe", an organization of which people volunteer to become members. For instance, the Sekehe Subak organizes irrigation; the Sekehe Manyi organizes rice harvest; the Sekehe Gong is a musical (gamelan) group; the Pasaran/Pemaksan is a group of boys and girls who organize ceremonies in the temple, and other sekehes depending on the number of activities of the village people concerned.

Sometimes an administrative village is linked to one or more tradition villages. A tradition village may also be linked to an administrative village.

The law of tradition rules the life of the village people in Bali. Tradition and religion are the basis of the Hindu Darma people. Therefore, the following similarities are found in almost every group of village people:

1. Mutual help is clearly shown during traditional ceremonies and in public places;

2. There is a great feeling of solidarity, so much so that personal interests are often put aside for common interests in implementing tradition;

3. Tolerance in religion is very strong.

Objectives:

The general objectives are to assist the Les Village people to know themselves and respond to the challenge of change in the village community, and to develop in them love for the school and education so that they will feel responsible for the education of their children.

Primary school in Les Village:

The village of Les is 36 km. from the city of Singaraja. It has a population of 4,000 and the standard of living is not too low. There is a strong solidarity. The people are easy to mobilize; 50% stay in the village, the other 50% are spread out in the estate. They are farmers and sell their products in the city or in other villages. There are two primary schools in Les with a total of 429 students. There are 15 classrooms, eight teachers, two permanent rooms and meeting places and two other small buildings.

The drop-out rate at the beginning was 30%. The children are not interested in reading or in anything that has to do with reading materials. However, they are very keen in arithmatic.

Activities in developing primary school:

In developing primary school education, the situation, tradition, activities of the members of the community, its leadership and the children's attitude towards the school and its environment were first explored.

The steps were:

1. Get moral support from the head of the village, including the head of the tradition village and prominent people who are active in reforming/improving education;

2. Contact the head and staff of the Regional Office of Education and Culture in connection with Primary and Junior High School Education;

3. Prepare mental counselling of teachers because their task will really be an experience;

4. Contact several instances which deal with innovations. For example, from the offices of agriculture, forestry, husbandry, fishery;

5. Organize informal meetings between village staff and prominents of the Office of Education and Culture and the head of the village of Les.

These meetings gave the simple village people the feeling that something important is happening in their village. They were approached and given oral or audio-visual information (films) showing that education is their own problem and responsibility.

A meeting with the children outside the school was organized to find out what problems they faced in school. The following problems were discovered: Lack of interest in learning/going to school; problems in reading; lack of teachers and equipment; large number of drop-outs. Efforts were made to overcome these problems. For example, to solve the problem of lack of interest, the gamelan and dancing sekehes were included in the school curriculum which the children linked and practised enthusiastically. Chess-games, sports, boy scouts activities and others were also included. As regards problems of reading, not only were the teachers upgraded, but newspapers and magazines were brought to school. A blackboard was put on the wall. The lack of teachers was discussed with the village leadership/village community development to get assistance. The lack of space was an interesting topic and was discussed in a meeting with village leaders and by giving information about teachers and the educational function. The construction of buildings was done by obtaining contribution from each head of families. Building materials were provided from the village products, stones, limestone, sand and others. Materials not available in the village were bought by the village. The construction was carried out by the villagers without any pay except for the architect. Men getting married below 18 years of age, which is against the law, were fined with two cubic metres of stone, two cubic metres of sand or other products of the village. Other violations were fined with carrying out public works, determined by the village community development.

Teachers also play an important role. When a general agreement has been reached, the Regional Office of the Ministry of Education and Culture is informed and approval asked. Other parties are then connected. In this way a modest village would feel that something interesting is happening in their village. The success of the activities in the village depends very much upon the psychological impulse which the teachers can help to create.

But sometimes strict regulations may cause delays in the programme activities; for instance, the regulation that a village is not allowed to appoint a part-time teacher. This may be good for one village, but not for another. Therefore, it would be good to give a village freedom in development as long as it does not cause any problems to the authorities. Freedom which does not harm the educational development is an education in itself in implanting a sense of responsibility and self-respect of the village, because it discovers its potentialities.

Important and innovative aspects:

The programme has been going on for two years. Yet all the time new problems come up which must be overcome.

In the work carried out at primary schools in the village of Les, there is a division of labour between the province/village and the Ministry of Education and Culture, which shows an attempt to make Education their responsibility.

Certain aspects of education have been identified to be the task of the government authorities, while others are the responsibility of the village people, such as:

1. physical aspects - a combined responsibility of Government and people;
2. technical/administrative aspects - a government policy on the kind of administration suitable for a village, as each village has its own characteristics.
3. personnel - government authority.
4. welfare - the teacher's welfare in the village is the concern of the village. This can be successful when a Ministry of Education and Culture official has good relationship with the villagers.

A clear division of work has secured efficiency and saved manpower.

New tasks ahead:

Apart from better schools, the curriculum must also be considered. The primary school curriculum should maintain some typical aspects of a Bali village, like language development, reading and teaching materials at the lowest level of primary education.

Source: Seminar on Educational Innovation: Final report.
Office of Educational and Cultural Research and Development, Ministry of Education and Culture, Jakarta, Indonesia.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: IRAN
EIA No: 81
No: 3
Date of issue: December 1976

Title: EDUCATION OF TRIBAL PEOPLE IN IRAN

Background:

Until twenty-four years ago the tribal people in Iran were deprived of all educational and training facilities. Then under royal discretion and guidance, the tribal children acquired literacy through mobile "tent schools". Later the half-educated rural teachers along the migration routes were replaced by graduates of the teacher training schools and the agricultural teacher training schools. Salaries were paid by the national government. However, after one year it was found that the urban youths could not put up with the spartan tribal life-style. So the half-educated teachers had to be employed once again. It was also agreed that tribal youths with some education would be selected as teachers for these schools.

Implementation:

In 1957, the Tribal Teacher Training School was set up in Shiraz. Tribal youths are selected from among the successful tribal primary school teacher by entrance examination and are trained for a year. For practical training, each month a number of schools with their students and teachers from the different tribes are brought to the Shiraz centre to observe the teaching methods. Each year the teacher training students, teachers and students of the tribal primary schools also participate in training camps. The work of the new teachers are followed and assisted closely by teacher supervisors. In teaching the pupils to read and write, the teachers have been trained to use the lessons to teach also about hygienic, social, agricultural and livestock-raising problems.

The programme, which was first experimented in Fars Province, has expanded throughout Iran. There are now 3,375 tribal teachers and 90,151 boys and girls studying in the tribal schools, without having to pay any fee. The success of these teachers is due to their adaptation to the tribal way of life. Permanent tribal schools have been established in the quarters where the tribal people have settled down.

Under a royal order, a tribal boarding high school has now been set up in Shiraz in 1967. And, in response to the change-over to the new system of education, seven guidance cycle schools have been established in centres of settled tribesmen. A large number of high school graduates have gone on to leading universities in Iran.

A girls' vocational centre was also established in Shiraz in 1970 to revive traditional crafts such as carpet weaving. Teachers are selected from the elderly tribal women who are skilled in traditional crafts. After twelve months, the girls are able to start private workshops, with the Office of Tribal Education providing the initial capital.

A boys' boarding vocational school was set up in Shiraz in 1972, offering courses in masonry, carpentry, latheing, electricity, automechanics, metal work and plumbing. The training period is two years.

In addition, the tribal youth and people are provided with mobile libraries, a tribal midwifery training, para-medical training, and mobile stores.

Source: Paper prepared by Office of Tribal Education, Shiraz, Iran, for a Regional Seminar on Alternative Approaches to School Education at Primary Level, Manila, 6-14 December 1976.

Contact person: The Director-General
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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: JAPAN

EIA No: 82

No: 9

Date of issue: December 1976

Title: CREATIVE SCIENCE TEACHING SCHEME AT HYOTAN-MACHI ELEMENTARY SCHOOL

Purpose:

To ensure the creative teaching of science in every class-room through the creation and use of a standardized teaching plan.

Special features:

The science study group of teachers in Hyotan-machi Elementary School, Kanazawa city, analysed the teaching-learning process in science classes and developed a standardized format for the preparation of teaching plans of unit-wise science classes. It is assumed that such a format for teaching plans will ensure the application of outcomes of advanced studies on science teaching, regardless of the years of experience and levels of knowledge of class-room teachers in science teaching. The format is composed of the following five areas:

1. Objectives: The instructional objectives of the unit are analysed in accordance with the problem-solving method. An analysis of objectives in view of the children's thinking processes and evaluation criteria from the affective, cognitive and skill domain are also required.

2. Content and method: The teaching and learning process is designed and expressed in the form of a flow chart.

3. Teacher and pupil behaviour: In order to ensure a desirable relationship between the teacher and pupils and among pupils, a flow chart is also developed to describe behaviours of teacher and pupils during the class.

4. Self-evaluation of the pupil: A sheet for self-evaluation by the pupil is to be developed in terms of thinking, understanding, attitudes and interest.

5. Evaluation by the teacher: A teacher's evaluation sheet is to be prepared in order to evaluate the individual pupil's cognitive development during the class. The teacher's evaluation on individual pupils in pre- and post-lesson periods can be expressed in one table form.

Status:

The teachers of the science study group started this scheme a few years ago and they first invited teachers and educationists outside the school in 1975 to examine their achievements. It is still an on-going study project, focusing on the development of a better format for the detailed description of the teaching-learning process.

Product:

So far five areas of the format have been developed and they are now under review through the study of the continuing experiment and discussions with experts outside the school.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver)

Country: REPUBLIC OF KOREA EIA No: 83

No: 5 Date of issue: December 1976

Title: SAEMAUL EDUCATION MOVEMENT

Background:

In the developmental decade of 1960s, priority in Korea's national developmental goals was given to industrialization. In the second developmental decade of 1970s more balanced weight has been given to both industrialization and agricultural development and, in addition, what is called the spiritual revolution has come to be greatly emphasized. The Saemaul Movement, literally denoting the New Community (or Village) Movement, originally proposed by President Park Chung Hee in 1970, is a concrete materialization of these shifts in national development goals, and the Saemaul Education is its educational aspect.

Objectives:

The Saemaul Education broadly aims at improving social relevancy of education by way of relating education to society, socializing the school on the one hand and educationalizing the society on the other. More specifically, its objectives are: (i) to tailor the curriculum to community needs; (ii) to foster the Saemaul spirit of diligence, self-reliance and co-operation among students and community people; (iii) to provide community service for students and productive adult education programmes for community people; (iv) to develop demonstration projects in schools aiming at increase of production and earnings for the community people; and (v) to make the school serve as a cultural centre of the community.

Implementation:

The implementation of the Saemaul Movement and Saemaul Education is typically characteristic of an ingenious combination of centralized provisions for policies, guidelines and support on the one hand and decentralized education on the other. The latter includes a combination of central support and local programme selection and implementation with local leadership and initiative. It combines efficiency with democracy; sense of direction with a large degree of flexibility and creativity; government support and local initiative. In case of the Saemaul Movement progressive improvement of states from the basic village to self-relying village and finally to self-supporting village has been brought forth and more recently it has been expanded to the urban area. As for the Saemaul Education programmes, 158 schools have come to provide more intensive adult education programmes, each school being called the Standing Saemaul School, while every elementary or secondary school is now providing modest adult education programmes called the Standing Saemaul Class. It has now become a nation-wide phenomenon.

Problems and issues:

Although the overall direction of the Movement has been generally accepted, problems remain to be solved. In case of the Saemaul Movement, the lack of effective local leadership in some communities may be the greatest problem; in case of the Saemaul Education, teacher apathy due to heavy workload may be a hindrance.

Impact:

The impact of the Saemaul Movement has been considerable, bringing forth visible changes in many of the rural communities in terms of improvement in their environmental conditions, increased production and earnings, and even of changes in their attitudes and habits. Although the impact of the Saemaul Education programmes is less visible, some of the successful cases give testimony to their contribution. It is now generally accepted that the Saemaul Movement, including the Saemaul Education, is one of the most significant and successful policies in present-day Korea with far-reaching impacts on Korean national development.

Specific features:

Some of the specific features of the Korean Saemaul Movement, and Saemaul Education, include the following: (i) combination of central support and local initiative; (ii) emphasis upon increase of production and earnings as well as spiritual rejuvenation; and (iii) nation-wide implementation with top priority given among national policies.

Source and contact persons:

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: MALAYSIA

EIA No: 84

No: 3

Date of issue: December 1976

Title: CENTRE FOR FOUNDATION STUDIES IN SCIENCE

Background:

The University of Malaya, since its establishment in 1962, has received a relatively small number of applications from Bumiputra (Sons of soil - native Malays) candidates who possess the required minimum STP/HSC (Higher School Certificate) passes in science subjects for admission to its science-based faculties. Despite steps taken by the Ministry of Education to produce more Bumiputra candidates in science subjects, the enrolment of Bumiputra students in the science-based faculties of the University of Malaya has remained small. In 1975/76 session the number of Bumiputra students made up only 21.9% of the total enrolment in the science-based faculties. This falls short of the goal of the University Council that the racial proportion in the faculties should reflect the racial composition of the country, i.e. 55% Bumiputra. The University Council has been concerned with this problem for several years. Although various steps (e.g. introduction of one-year pre-engineering and pre-science courses in the 1972/73 and the 1973/74 sessions respectively) have been taken to achieve the national aim of restructuring society by correcting the racial composition not only in the University in general but in each faculty, the enrolment of Bumiputra students has not reached the desired target in the Faculty of Science. The University Senate on 26 February 1976 set up a board of studies which proposed the setting up of a Centre for Foundation Studies in Science responsible for organizing courses to replace the existing one-year courses in pre-science, pre-engineering and pre-medicine.

Objective:

To increase the number of Bumiputra students in the science-based faculties of the University so as to conform to the national policy by organizing courses in foundation studies in science.

Programme:

The course will consist of 4 semesters spread over 2 years with 16 weeks of lectures in each semester. Semesters I and II will comprise common courses in biology, chemistry, physics, mathematics and English language for all students.

Semesters III and IV will have two major streams:

(i) Science stream - biology, chemistry, physics, language and mathematics

  a) designed for students specializing in subjects other than mathematics;

  b) designed for students intending to specialize in mathematics.

(ii) Engineering stream - engineering subjects with language and mathematics.

For entry into Semester I, the candidates must pass the SPM/MCE examination with credits of at least three science subjects.

For entry into Semester III, the candidates must take the STP/HSC examination not earlier than two years after passing SPM/MCE and have obtained a pass in at least one science subject at the subsidiary level.

Bumiputra candidates who possess the minimum STP/HSC qualification for admission to degree courses of the University may also apply for admission to the Centre if they wish to strengthen their knowledge of science subjects before joining the degree courses, or if they feel that their STP/HSC results may not be good enough to gain admission to the degree course of their choice and hope to gain admission to that course through the Centre.

The candidates admitted to the Centre may also apply for an exemption in some subjects if their performance in the STP/HSC examination in those subjects is Grade A or B.

For each subject taught at the Centre, 75% of the mark is from the main examination and 25% from course work during the semester. There are also provisions for supplementary examinations.

Since most of the students are expected to be from the rural areas, a welfare and counselling service will be available to the students. Further, all students will be required to live in the university residential colleges.

As it is expected that this may be a transitional programme to increase the Bumiputra students in the science-based faculties, the buildings for the Centre are to be designed for easy conversion to meet future development needs of the University.

Innovative features:

This systematic approach to implementation of the national policy in higher education will provide a link between secondary schools and the University.

The students who are successful in the Semester IV examination will be entitled to apply for admission to degree courses according to their choice and depending on which stream they come from:

Stream	
Science	Dentistry, medicine, science or science with education.
Engineering	Engineering only.

Source:

"Malaysia: Inventory of Educational Innovations", Fakulti Pendidikan, Universiti Malaya, Kuala Lumpur, Malaysia.

Contact Organization:

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: MALAYSIA

EIA No: 85

No: 4

Date of issue: December 1976

Title: JOB-CUM-TRAINING SCHEME

Background

The scheme was first introduced by the City Council of Georgetown in 1069 where initially some 100 unemployed youths, drawn from the Employment Exchange, were selected to perform duties as parking attendants. As the number grew, it was decided to train these youths in some skills to equip them for potential employers, particularly of new industries in the private sector, who despair at recruiting workers from existing sources since some youths have skills but no knowledge of the role of a worker, and others know the worker's role but have no saleable skills or possess neither skill nor conception of worker's role.

Objectives:

The primary aim is to provide continued commercial, vocational and technical education in part-time day/evening training in a wide range of courses, thereby making it possible to create a reservoir of skilled workers to meet the growing demands of commerce and industry.

Implementation:

All candidates first report to the centre for a familiarization programme. Based on vocational interest and personal information, candidates are short-listed and interviewed. There are many successful candidates who even possess the M.C.E.

As parking attendants they are required to work for 4 hours a day at the job. As a trainee 8-16 hours a week are spent on the course with the ratio of practical work and theory maintained at 3:1. In addition, frequent visits to factories are made. All trainees are encouraged to participate in the Recreational Club activities which include projects like making of steel chairs, desks, wooden tea trays, etc. Trainees are prepared to sit for Peperiksaan Sijil Perdagangan Malaysia, LCC for Commerce and the London City and Guilds examination, NITTCB for technical subjects. Courses are from 6-9 months.

Basic electrical crafts, mechanical craft practice, welding, radio/television/electronics, electrical engineering practice, electrical installation work, shorthand/typing, building construction, electro-mechanics, commerce draughting, wireman refrigeration and airconditioning are some of the courses offered.

Impact:

From 1970 to 1975, 1,137 youths have received training, of which 1,042 are known now to be employed. The remaining 72 are known to have been dismissed. The present enrolment is 399. Because of the limitations of the Centre and the success of the scheme to train skilled labour for the industries, it is envisaged that the State Government will take over the Centre and expand the scheme to other areas. In fact a move has been made to effect such a proposal.

Innovative features:

Some of the innovative features of this project are:

1. The employment of youths to help in the traffic problems of the city and to collect revenue for the city;
2. The training of youths for the skilled labour demands of an expanding industrialization programme;
3. Training of local manpower requirements; and
4. This is the one and only centre of its kind in Malaysia.

Source: "Malaysia: Inventory of Educational Innovations"
Fakulti Pendidikan Universiti Malaya,
Kuala Lumpur

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: MALAYSIA

EIA No: 86

No: 5

Date of issue: December 1976

Title: MOBILE IN-SERVICE COURSES

Background:

Keeping teachers up-to-date both technically and professionally is a problem that concerns educators in every country.

In Malaysia, there is today a commitment to a kind of agricultural education that did not exist before. A new syllabus now outlines the secondary school agricultural science programme that includes both practical experience, as well as basic theory. In order to assist teachers to keep up with the new development in agricultural science programme, a need for organizing mobile in-service courses in Johor, Malaysia, was recognized.

Objectives:

The mobile in-service courses were organized in order to:

1. assist teachers of agricultural science in Forms I to III in the State of Johor;
2. determine the problems encountered by these teachers in the teaching of agricultural science;
3. assist the teachers in solving these problems where possible;
4. impart new ideas of agricultural science teaching and school organization for the subject; and
5. serve as a pilot project to determine the feasibility of using similar mobile units to reach agricultural science teachers in the other States

Scope of the Project:

Attempts were made by the mobile in-service unit to provide training to all those agricultural science teachers who were interested in the programme in Johor. About 150 teachers participated in the programme.

Implementation:

The courses were conducted over the week-ends (Fridays and Saturdays) in selected schools at the district level. One centre (a host school) in each district in Johor was chosen. Teachers from schools nearest to the centres were informed to meet at the centres for the course. The teaching staff there travelled from Johor Bahru each week-end by landrover to the centres. Equipment and materials needed to run the courses were taken along from Maktah Perguruan Temenggong Ibrahim (MPTI).

The Bahagian Pertanian of MPTI served as headquarters for the co-ordination and organization of the course. Each host school at the district level was selected on the recommendations of the Johor State Education Department. Headmasters of the host schools made the necessary arrangements to provide meals to the participants.

Inputs:

The staff from the Bahagian Pertanian of Maktah Perguruan Temenggong Ibrahim (MPTI) conducted all discussions. Funds that were required to run the courses were provided by (a) The Teacher Training Division of the Ministry of Education; and (b) the Johor State Education Department. With an average attendence of 150 participants per round, the average cost of training each teacher for 4 days (2 week-ends) for 22 contact hours was $76.00.

Innovative features:

Rather than following the usual practice of having the teachers come and meet the lecturers in one centre, the lecturers travelled to various centres to meet the teachers.

Source: "Malaysia: Inventory of Educational Innovations" prepared by Fakulti Pendidikan, University of Malaya, Kuala Lumpur, Malaysia (1976).

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)
Country: MALAYSIA
EIA No: 87
No: 6
Date of issue: December 1976

Title: UNIVERSITI SAIN MALAYSIA OFF-CAMPUS ACADEMIC PROGRAMME

Background:

The project was started in 1971 to solve the problems of (a) adults who for one reason or another are unable to pursue full-time university studies although qualified to do so; (b) Shortage of high-level manpower to accelerate economic development; and (c) to redress the imbalance of educational opportunities between the economically more favourable and less favourable areas within Malaysia. The project originated from the Vice-Chancellor of U.S.M. to fulfil one of the committed functions of the University to serve the community at large. The project was conceived locally with no reference to any existing models.

Objectives:

General objectives:

1. To provide opportunities for university education to those over the age of 23 years who for one reason or another have not been able to pursue full-time studies leading to the award of a university degree;

2. To enhance the productivity of those who are already in employment by up-dating their knowledge and skills;

3. To redress the imbalance in educational opportunities between the economically favourable and less favourable areas in Malaysia;

4. To meet the increasing demand for high-level manpower.

Operational objectives:

1. To provide a diversified programme of studies to enable off-campus students to obtain a standard of academic excellence similar to that required for on-campus students;

2. To devise new approaches to teaching and learning that can overcome partially or fully the problem of distance between place of residence and employment on the one hand and place of instruction on the other;

3. To organize annually a residential three weeks' intensive course (a) to enable off-campus students to meet one another and the academic staff; (b) to supplement learning by correspondence with face-to-face instruction.

Scope:

1. The 'target population' comprises adults irrespective of race, sex and religious beliefs over the age of 23 possessing the minimum qualifications required for admission to the University. The projected annual intake over the next ten years will be about 250-300 students;

2. To ensure that the project is national in character and reflects the plural ethnic composition of the population, each State of the Federation of Malaysia is allotted a number of places to be filled by a reasonable proportion of students of different ethnic origins;

3. To involve participation of employers, a letter of sponsorship is sought to ensure that leave of absence will be given to students (a) to attend the three weeks' residential course, (b) to sit for the essential examinations.

Implementation:

The programme is administered by the Off-Campus Unit within the Centre for Educational Studies. The Unit is headed by a co-ordinator assisted by a staff of administrative officers, clerks, stenographers, typists and attendants. The Off-Campus Unit is responsible for planning , administering and developing the programme. The Deans of the different Schools retain the responsibility of teaching and deployment of the academic staff. The Registrar of the University processes admission and the Bursar looks after the collection of fees.

The programme started with an intake of 84 students enrolled in courses offered by the School of Humanities and the School of Social Sciences in 1971. In 1973, the School of Physics began to participate in the programme and this was followed the following year by the School of Chemistry, the School of Biological Sciences and the School of Mathematics.

The content of the courses offered is similar in all respects to that offered to the on-campus students. Off-campus students are taught by the same staff and sit for the same examinations as the on-campus students.

The methods of teaching are designed specially to meet the needs of off-campus students. For the immediate and distant future, it is hoped that the Educational Technology Unit also located within the Centre for Educational Studies will be able to lend strong support to improve the methods of delivery.

Performance and impact:

The project has proved to be an unprecedented success. The number of applications per year has risen from about 500 in 1971 to over 2,500 in 1975. The first intake of students will be graduating in June 1976. The rate of drop-outs is reasonably low - less than 20%. The Ministry of Education looks to the Off-Campus Academic Programme to increase the number of science teachers. The Armed Forces and the Police are supporting the programme to enhance the qualification of their senior officers. There is no lack of support from the private sector.

Innovative features:

1. For the first time in the history of Malaysia, opportunities for university education are provided for adults who cannot leave their places of employment to pursue full-time studies.
2. Maximizing the use of university facilities and academic staff has resulted in the reduction of the cost per unit of off-campus students compared to that of on-campus students.
3. Development of new approach to learning and teaching at the tertiary level to overcome the problems of distance and inability to pursue full-time studies.
4. Promotion of a greater sense of service to the community among academic staff members of the University.
5. Promotion of closer co-operation among different educational agencies such as the Ministry of Education, the State Education Departments, the six-form schools and the local libraries.
6. Promotion of team teaching to enhance the quality of instruction.
7. Encouragement in the application of technology to improve the technique of teaching and learning, e.g. the use of sound cassettes and self-instructional materials with the aid of slides.
8. Promotion of research in the area of distant education.

Source and contact person:

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
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Country: NEPAL

EIA No: 88

No: 5

Date of issue: December 1976

Title: NATIONAL DEVELOPMENT SERVICE IN NEPAL

Background:

In the 1960s, leading educators in Nepal began to prepare "the National Education System Plan for 1971-76" which provided the foundation for a major reform of education in Nepal. At the same time the idea of creating the National Development Service (NDS) was conceived. It was not until 1973 when a working design took shape, which called for pilot projects and an introduction of NDS as a requirement for degree-level students beginning in 1974.

Objectives:

1. To allow students to experience the realities of the rural situation, thereby making higher education broader in its outlook and more practical and attuned to the real development needs of Nepal;
2. To give students the opportunity to help meet their country's development needs during their academic careers.

The NDS has been introduced not just for its direct effects on the students, but also for its potential to help bring about important changes in other parts of the education system, e.g. curriculum content, teachers for rural areas, examination system, extension services.

Implementation:

Tribhuvan University was given the responsibility of implementing the NDS scheme, with the necessary budget provision. The legal basis is the Tribhuvan University Act of 1970-71 which decrees that such service is required not only for Nepalese nationals studying at the University, but also for foreign nationals studying there and for Nepalese nationals gaining degrees in other countries. The length of the service is one year, and it is introduced first at the degree level before the final year of study so as to involve, at the initial stage, a comparatively small number of students. It is planned to move the NDS service requirement to the diploma level later on.

The students are not assigned to their home villages, but to more remote and needy villages where they may work more effectively. They have to live in the villages they work in, for a total of 300 days. The selected villages have high schools or lower secondary schools which serve a number of neighbouring villages.

The choice of assignments is based on the following factors:

1. Participants should supplement or complement existing rural development programmes rather than the NDS creating new ones.

2. Participants should work at the village level rather than at the district level or higher.

3. Participants should not work as full-time school teachers only, nor as full-time health workers, nor as full-time anything else, but should have cross-sectoral or inter-disciplinary assignments.

4. However, participants should have some focus or priority (e.g. school teaching) among their various tasks.

5. No more than one or two students should be assigned in one village, with other students in nearby villages for support.

Priority is given to teaching, but students must be active in other activities, e.g., health education, agricultural extension, literacy work, adult education, reforestation.

The participants are individually evaluated. However, the complex grading system has yet to be tested in practice. It is based on making available a total of 80 marks or 8 credits that can be earned by NDS participants towards their degree. These marks are divided among various aspects of work and performance. To ensure a good grade, the students need to be active in village development activities as well. The grading is based on the collated reports of the headmasters, supervisors from the District Education Office and NDS staff members.

Efforts are being made to develop and improve the pre-training programmes and support materials dealing with village development activities.

As yet no systematic evaluation of the NDS scheme has been conducted.

Innovative features:

1. The NDS scheme contributes to bringing about important changes in the education system, for example, the replacement of the high content of foreign-oriented material with Nepal-oriented material.

2. The NDS will speed up these changes by exposing students and their teachers to the realities of life for the majority of Nepalese.

3. By granting academic credit for something for which there is no conventional examination, the NDS is helping to lessen the dependence on examinations.

4. Many students are assigned to work in communities dominated by ethnic groups other than their own; they and the local people must learn to live and co-operate with each other.

5. The scheme helps to develop extension services.

6. The NDS will not only give the students more usable skills, but will also change their attitudes towards seeking employment outside the Kathmandu Valley or better developed areas in Nepal.

7. The scheme will give the students an understanding of rural development problems which will stay with them in their subsequent careers, thereby making a long-term contribution to Nepal's development strategies.

Source: Study-Service Newsletter, Dec. 1975, published by Diana Fussell and Andrew Quarmby, P.O. Box 753, Kathmandu, Nepal.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: NEPAL

EIA No: 89

No: 6

Date of issue: December 1976

Title: REMOTE AREA PRIMARY TEACHER TRAINING PROGRAMME

Background:

The problem of availability of teachers, trained or untrained, is not so difficult in urban areas and district headquarters. But the remote areas of Nepal face a most serious problem of getting teachers to run a school. His Majesty's Government (HMG) has made various provisions to get more and more prospective teachers from these remote areas and to train the untrained ones serving in the schools.

High mountains and deep rivers restrict travel and transportation most of the time in the year and isolate settlements from one another. Development efforts have been obstructed by difficult communication, particularly in the hill areas. It has imposed an added problem in developing the country evenly and uniformly. For this, 10 per cent of the country's population living in the high Himalayas needs special attention in many respects in general, and in education in particular. The geographical distance, climate variance, cultural difference, and economic handicaps demand a seperate and special programme for these areas.

The problem of supply of trained teachers to the remote areas of the country is acute. Teachers from other parts of the country generally do not want to go to these remote areas. The problem is further aggravated when one finds that there are very few people who qualify to undergo training in these areas. Hence, the task before any teacher training programme for such an area is dual, i.e., to enhance their academic qualifications, and to give them professional training.

Objectives:

The objective of this project is to provide academic and professional upgrading and training of unqualified local teachers already working in the remote areas. At present this project covers the districts of Jumla, Humla, Mugu, Tibrikot and Dolpa in the high Himalayan region of western Nepal.

The project envisions to upgrade and train 46% of the teachers of these districts who have not completed even their eight years of formal schooling, thus making them qualified and more competent.

Implementation:

It has been designed at present to take 40 in-service teachers each year for upgrading and training. The project was started in February 1975.

The Institute of Education provides teacher educators and other administrative and office staff and looks after the smooth operation of the programme. The Central Ministry of Education provides substitute teachers to replace the trainees for the training period and also provides allowances for the trainees. UNICEF meets 75% of the costs for basic salaries of substitute teachers, cost of transportation, equipment and supplies. A four-year course leading to School Leaving Certificate-Primary Teaching Certificate has been especially designed in the areas of general and professional studies.

A slight curricular change has been made by making professional education courses more field-oriented to suit the needs of the trainees and by giving remedial teaching. This programme is directly administered by the Office of the Dean, Institute of Education, Tribhuvan University.

Present status of the Project:

Since the project has just started, its productivity cannot be gauged at present. Its productivity lay in its objectives and its planning, i.e. to up-grade and train all the unqualified teachers. It is definitely indigenous to the Nepalese context, in the sense that it is one of the most viable means to train such teachers.

The feasibility of the programme has been, to a certain extent, established on the basis of the experiences in its implementation.

The project is problem-oriented and systematic. It promotes social justice to the teachers of far-off areas. Though the project may be costly, it is justifiable in the light of social justice and in developing the remote areas in accordance with the National Development Plan of Nepal.

A planned and continuous supervision appears to be essential.

The training of teachers as development workers may bring more promising personnel to the programme. Teachers may have to be prepared to work in close collaboration with health, agriculture and other development workers for the villages.

Source: "National Inventory of Educational Innovations", National Development Group, Ministry of Education, H.M.G. Kathmandu, Nepal (1975)

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PHILIPPINES EIA No: 90

No: 16 Date of issue: December 1976

Title: COMMUNITY SERVICE PROGRAMME OF THE UNIVERSITY OF NUEVA CACERES

Historical background:

The Community Service Programme of the University of Nueva Caceres is an integral part of the Student Teaching Programme of the College of Education. It evolved out of a felt need.

It started in 1964 when the mayors of the education classes organized themselves into what is now the Mayors League and had for its first activity a seminar on leadership. In the seminar they invited resource persons who spoke on parliamentary rules, leadership and civic responsibilities. Desiring to put into practice their training not only in the school campus but also outside, they scheduled a number of weekend activities in their own towns involving government officials, out-of-school youths and community citizens. Their activities were mainly recreational and cultural in nature. They organized basketball leagues and games and put up reading centres. The reaction of the community and the effects of the experiences on the development of the students were very encouraging and inspiring that efforts were made to make the experience an integral part of the training of would-be-teachers and enable all education students to undergo the experience. The senior year was chosen, more specifically, the internship period, because at this time the students are more skilled in working with people, more competent in organizational and management skills, full of enthusiasm and eagerness to put into practice what they learned; they can get the confidence and respect of people more easily and the experience can be introduced without causing radical changes in both the instructional and organizational programmes. The programme is made so flexible as to preserve the spirit of volunteerism that is valuable in experiencing self-realization.

The first organized programme of community service in the university was launched in the school year 1967-1968.

Objectives:

The programme was intended not only for students but also for the university and the community as well. Broadly it was intended to achieve the following objectives:

For the students:

1. To increase knowledge and understanding of the real situation from which the pupils in school come;
2. To develop more skills in human relationship;

3. To put into actual practice what is learned in school;
4. To develop concern for the welfare of all people;
5. To initiate and actively participate in community projects;
6. To generate interest in self-improvement activities.

For the university:

1. To contribute its share in community development;
2. To tap manpower potentials in the school in doing extension work;
3. To involve the community in making the school programme relevant to the needs of the community;
4. To help bridge the gap between the haves and have nots.

For the community:

1. To contribute to the continuous improvement of the school programme so the community can benefit from it;
2. To share in the benefits of formal education which otherwise would not be possible for them to have;
3. To improve community living by tapping the manpower potentials of the school.

The Student Teaching Programme (from 1968 to 1971)

1. For the Bachelor of Science in Elementary Education (BSEED) student teachers

   Internship, which is the last subject of the BSEED students, used to be taken during the last semester.

   The 18 weeks in a semester are pro-rated to the various activities, e.g. orientation, demonstration classes, barrio visits, off-campus practice teaching in barrio public schools, community services in selected barrios.

2. For the Bachelor of Science in Education (BSE) student teachers

   3 weeks - orientation

   5 weeks - in-campus practice teaching

   5 weeks - off-campus practice teaching

   5 weeks - community service

   (similar programme with BSEED students as to training, selection of barrios, planning projects, etc.)

Community Service Programme Mechanics:

During the orientation and the off-campus practice teaching period, the students select the communities where they will stay and make tentative plans of work. They visit these communities, get acquainted with the barrio officials and the leaders. On their last week of off-campus practice teaching, they prepare their invitations to the barrio captains, the municipal officials, and the co-operating agencies to attend an orientation conference on the UNC Community Service Programme. The conference is usually held in the university on the Saturday following their last day in the public schools. In this conference are discussed the purposes of the programme, the role, the status and the responsibilities of each. Also discussed by the students and the barrio officials in small group sessions are the problems in the barrios and the projects they can do together.

The following Monday the students report to their respective assignments.

Usually their barrio work is started with a conference with the barrio council and the holding of community assemblies where the students are introduced, their presence and the purposes of their stay in the barrio are explained, the problems of the barrio are discussed and a programme of work formulated.

A team of 3 students is assigned to a barrio. The grouping, like the selection of the barrio, is left to the students. The criteria used in selecting the barrios are:

1. The place is safe for the students;
2. The way to the place is not hazardous;
3. There is a challenge in the barrio that the students can ably face.

Every week-end the students report to the university to evaluate their work, to discuss the problems met and to consult and get the services of people who can help them with their work. Written reports of the week's work are submitted.

The barrio work is terminated with an evaluation conference attended by the municipal officials, barrio captains, youth and adult leaders, and co-operating agencies; usually there are some people that attended the orientation conference. Reactions to the programme are orally made during the conference besides the written evaluation reports submitted by the barrio captains.

Due to the persistent requests of students, the community, and the government agencies, the Community Service Programme has been extended to last for a whole semester. The present student-teaching programme is structured thus:

First semester (18 weeks)

Practice Teaching: 4 weeks' orientation
7 weeks' in-campus practice teaching

Second semester (18 weeks)

Community Service Programme: 5 weeks' orientation and training
13 weeks' field work

Achievements:

For the last nine years 1,072 students have served in 201 barrios in 21 municipalities in Camarines Sur and in the two cities of Iriga and Naga.

The various projects in which the students were engaged were:

(1) pre-school classes; (2) cleanliness and beautification of houses and streets; (3) backyard gardening and food production projects; (4) cottage industries; (5) adult education classes on: (a) improved farming, (b) family planning, (c) health and nutrition, (d) proper voting, (e) family relations, (f) the New Constitution, (g) Samahang Nayon, (h) Kilusang Bayan; (6) road widening and improvement; (7) drinking water pumps; (8) reading centres; (9) communal gardens for seed production; (10) recreation programmes; (11) cultural programmes to tap talents in singing, dancing, speaking; (12) survey and study of the problems relating to the family and the community; (13) feeding centres; (14) leadership training; (15) training for barrio government; (16) reforestation; (17) sanitary toilets; (18) tree planting along the roads; (19) street naming; (20) scouting; (21) first aid; (22) sports and athletics; (23) rural medicine; (24) map making.

Finance:

The students pay for their own transportation expenses and bring their own provisions for meals. They cook their own food and look after their own needs. Co-operating agencies make available for free use of their transportation facilities and donate hand-outs and other instructional materials. The university takes charge of the salaries and transportation allowance of the supervisors, the printing materials and the facilities and equipment used during the training and the conference.

Innovative features:

1. The principle of self-help is emphasized. That is the reason for the active involvement of the participants from planning to evaluation.

2. Natural resources, human resources and service agencies are utilized to the maximum.

3. Harmonious working relations are established and full cooperation of those who can help in implementing the programme is secured.

4. The community is properly oriented as to its role and functions in the programme.

5. High sense of service is maintained by avoiding publicity that will make any sector involved in the programme publicity conscious.

6. Flexibility of the programme is provided to tap initiative, resourcefulness and creativity, to avoid credibility gap and make students more effective agents of change.- Grants and aids that are likely to affect any of these considerations are avoided.

Source: "Report of National Seminar on Educational Innovations", Manila, 5-6 January 1976

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: PHILIPPINES

EIA No: 91

No: 17

Date of issue: December 1976

Title: YOUTH CIVIC ACTION PROGRAMME (YCAP) IN THE PHILIPPINES

Background:

In 1972, the Department of Education and Culture (DEC), realizing that 65% of the country's population is 24 years of age or below and that youth's energy, enthusiasm, temperament and idealism need to be channelled to socio-economic development in order to ameliorate the conditions in the barrios (villages) and other depressed areas, launched the Summer Youth Civic Action Programme for elementary, secondary and college students.

The programme is designed to make education more relevant to changing societal needs and to provide rich and varied opportunities for students to apply and test classroom learnings in real life settings. The programme further provided opportunities for involvement in community development, to show love for one's country, thereby affording students experiences for self-realization and self-fulfilment.

Voluntary at its inception, only 63 school divisions out of more than one hundred fully implemented the programme. Although the reaction was quite favourable from the implementing divisions, the impact left much to be desired considering the expected results. On 13 November 1972, the Evening Express brought to the fore the call of His Excellency the President of the Philippines for youth programmes in the schools to be expanded and made more effective. He asked the youth to go back to the land that nurtured them and to search for avenues through which they could address themselves to the task of helping improve the quality of life of their less privileged countrymen.

Pursuant to this pronouncement, the DEC issued to the field, Department Order No. 53, S. 1972, dated 28 December 1972, announcing the launching of a Youth Civic Action Programme integrated with the curriculum and requiring immediate implementation in the elementary and secondary schools beginning with the school year 1973-1974. The order further mandated participation in the YCAP by all third-year college students, making this a pre-requisite for graduation.

Objectives:

1. to orient the youth and the community to the ideals and goals of the New Society;

2. to imbue the youth with social and civic consciousness, social responsibility and a desire to participate in the development of one's community through the wise use and conservation of both human and material resources;

3. to make the youth realize the role they must play in the socio-economic development of the country;

4. to involve the youth in the development of their communities;

5. to give more meaning to school experience through the actual application of learnings in the solution of community problems;

6. to instil love for and pride in the country and people, particularly through the revival of those aspects of the Philippine cultural heritage that are supportive of the goals of the New Society;

7. to develop citizens who are upright, clean, orderly, law-abiding, physically fit and God-loving;

8. to guide the youth in forming a more realistic perspective of life.

Implementation:

The programme involves the following:

1. Elementary school pupils
2. Secondary school students
3. Higher education students.

Elementary and secondary schools

1. The programme is being implemented in all elementary and secondary schools.

2. Every teacher-in-charge of a class and every teacher of a subject in a departmentalized set-up is responsible for implementing the programme in connexion with the subject/subjects she teaches. As much as possible the teacher plans her lessons in such a way that civic action activities/projects and other meaningful experiences such as the practical application of learnings come in naturally. She may either structure her lessons around community problems or make them culminate in civic action projects/activities which contribute to community development. The community is, thus, the laboratory for testing and applying classroom learnings.

3. The problem of when to undertake civic action projects/work is decided by the teacher who apprises her principal of the time and day her class is going to engage in such activities. The nature of the project/activity determines the time and day it is scheduled.

4. For greater impact a school may opt to designate a definite hour and day each week for all classes to undertake civic action work. Other schools prefer to have all students in a certain grade/year undertake civic action work at the same hour and day. Such activities are integrated with lessons to be meaningful and productive of positive results.

   Another strategy which may result in greater impact is what may be called the 50-50 approach whereby students spend 50% of the school day's time in academic activity and the remaining 50% in actual work.

5. It is desired that every student engage in civic action work, i.e., go to the community at least once a week with his class or special group.

Higher education institutions

1. A Youth Summer Civic Action Programme for college students has been held every school year beginning with the summer of 1973.
2. Participation in the summer programme is a pre-requisite for graduation and is required of all college students in the third year. Second-year students who anticipate attendance in an academic summer class during the following school year may, upon certification of their college deans, apply for participation in a specific summer civic action programme to meet the requirements for civic action work.
3. Every higher education institution is responsible for providing or seeking opportunities for its students to participate in civic action programmes during the summer. Each gathers and disseminates information about types of programmes that will be available and advises students on how to register for participation in them.
4. Students may participate in summer programmes organized either by their respective schools/colleges/universities or by local committees in their respective towns or cities in the different school divisions.
5. The Youth Summer Civic Action Programme is for five weeks, the specific dates are decided upon by the provincial and city committees.
6. Students engage in projects/activities that relate to their major fields of study or that can make maximum use of their special talents or particular interests.
7. Students are required to register for participation in the Youth Summer Civic Action Programme on the days scheduled by the local committee or school, necessarily at least two months before the start of the programme to allow the committees to make adequate preparations for all the activities/projects chosen by them.

Inputs:

Inputs for this programme consist of financial support as well as materials, equipment and supplies made available for YCAP work in the offices of school superintendents, supervisors, principals, heads of private schools, colleges and universities.

Management:

The Honorable Secretary of Education and Culture, in cooperation with the Presidents of the state colleges and universities are at the helm of this nation-wide programme. Since the programme is integrated with the educational curricula, management of the programme follows the hierarchical ladder of the educational system from the Secretary down to the directors, superintendents, supervisors, principals, YCAP coordinators and teachers.

Problems and constraints:

1. difficulty of supervision of student's work;
2. overcrowding of students in one area or project;
3. need for more faculty involvement within schools;
4. need for better co-ordination among agencies involved in the projects;
5. need for a healthier climate among groups engaged in competitive activities;
6. need for additional funds;
7. need for a more supportive attitude among laymen, school leaders and parents;
8. problems associated with the validity of certificates issued to YCAP participants;
9. need for evaluative instruments to measure progress and goal achievement of the programme as a whole;
10. need for better public information about the programme and orientation to it for all concerned.

Key features:

1. The Youth Civic Action Programme provides a specific opportunity and venue for student service to the community, particularly the poorest barrios.
2. Virtually all elementary, secondary and university students are involved.

3. Participation is mandatory and a pre-requisite for graduation.

4. Youth civic action is a laboratory which allows the application of classroom learning in the solution of community problems and thus gives more meaning to the curriculum.

Source: "National Inventory of Educational Innovation"
Department of Education and Culture
National Research and Development Centre for Teacher Education
Manila, Philippines

Person responsible and address: Hon. Juan L. Manuel
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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
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Country: SRI LANKA
EIA No: 92
[illegible] 6
Date of issue: December 1976

Title: JANAWASA SETTLEMENT AND RESETTLEMENT SCHEME

Background:

The concept of Janawasa is not very new. Though in fact co-operative Janawasa system was introduced in January 1973, it was a revival of the ancient system of agricultural land ownership and land use that has been in existence over a long period of time but which had been pushed into the background with the development of new commercialized plantations. The basic concept of Janawasa is that lands are owned and used in common for the benefit of all youths working in the settlement. No land held by a Janawasa will be used for the benefit of any individual member of the Janawasa except for an extent not exceeding 30 parcels which may be leased to members for such purposes as may be determined by the Janawasa.

The Janawasa had to be introduced because it was necessary to find employment for the youths and resettle them on the land. The employment potential in the industrial, commercial, State corporate sector was limited. Moreover, this system permits the retention of youths in their villages and does not encourage migration from the villages to outside areas. Also, this system encourages self-help management, whereby production is given priority. Production planning will be initiated by the members of the Janawasa and revisions of the plan and the implementation will be done by them. Profits earned from the land by collective cultivation will be divided after deducting loans given by the Government.

The failure of youths' settlement in the past was due to high bureaucratic control imparted over the years by which officials tried to give leadership rather than encourage leadership from among members. Therefore it was inevitable that a novel system had to emerge which was different and not alien to the society. Thus the Janawasa system is closely related to the social structure in Sri Lanka and also throws light from the country's historical experience.

Objectives:

The objectives of the Janawasa system are:

1. to foster collective management and development of agriculture and collective development of animal husbandry;

2. to ensure maximum production and utilization of agricultural land for maximum employment and profit sharing in proportion to the work output;

3. to permit social and cultural habits among the members of the Janawasa;

4. to provide agricultural machinery, implements and inputs and other services to members of the Janawasa.

The Janawasas are trying to assist the village by producing necessary items and commodities produced at low prices compared to the open market prices. The members of the Janawasa have tried to take part in all activities of the village including assisting the villagers in cultivation, harvesting, house construction, water conservation, etc.

The final objective of the Janawasa is to integrate all youth settlement schemes that are operated by the various institutions in the country into an accepted system.

Scope and strategy:

The project activities are to serve all the youths, both male and female, who have the necessary background in agriculture. The scope of the project is very large and will increase over the years. With the rising youth population (in fact at present in Sri Lanka, 60% of the population are youths) and with the large number of the youths passing out annually from various educational institutions including the university, more youths will find it difficult to find employment in the government sector, corporation sector, private sector, or in the industrial sector. Therefore, employment could be found in the Janawasa since land is now mainly held by the Government and since the Janawasa system has become quite attractive to youths.

Implementation:

The Janawasa system began in January 1973. Its progress has been very encouraging. At the end of 1973 there were only 19 Janawasas. Today there are 176 Janawasas and this will increase over the years. Co-operative societies which are Janawasas now and are interested in popularizing the objective of the Janawasa are registered as Janawasas. The membership of the Janawasas consists of only Ceylonese and also youths who are not less than 18 years of age. However, a society registered as a Janawasa society under the Co-operative Society Law No. [illegible]5 of 1975 will in future be registered under the Janawasa Law as the Janawasas under the Janawasa Commission and will be subject to any by-laws for the purpose of achieving the objectives of the Janawasas.

Performance and management:

Nearly 80% of the Janawasas have been successful and about 20% have failed due to various factors like wrong selection of land, vagaries of weather, lack of inputs, etc. Therefore the Janawasa system in Sri Lanka has been very satisfactory and has moved forward progressively.

Source: "National Inventory of Educational Innovations"
Ministry of Education
Colombo, Sri Lanka

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)

Country: THAILAND

EIA No: 93

No: 6

Date of issue: December 1976

Title: NEW ORGANIZATION AND ADMINISTRATION OF ADULT EDUCATION

Background:

Since the establishment of the Adult Education Division, a variety of programmes have been initiated and brought under its wings. It is evident that the variety of programmes is causing obstacles in the effective implementation of adult education. These obstacles stem from some fundamental shortcomings in the present organizational structure of the Division. In view of the increasing demands for adult education and the need for more extensive and better coordinated programme, it is necessary to revise the present organizational structure of the Division to enable it to cope with the increasing complexity of the programmes. Furthermore, by avoiding changes in the organizational structure and by attempting to standardize adult education so that it can operate in the present structure, adult education will run the risk of losing its unique flexibility and responsiveness. It will become no more than formalized education for the out-of-school population.

Objectives:

The essential organizational objective of this project is to cohere and, where necessary, expand through supplementation, the extant activities into a national system of adult education. This system is intended to provide and support adult education on a regular and on-going basis to all adults in the Kingdom. The attainment of this objective requires the establishment of a highly flexible and multi-faceted education system.

Scope, implementation and management of the project:

Ultimately a multi-tiered and multi-purpose adult education network will be created. Three tiers are envisioned, in which two will have a primary operational responsibility and function, while the third will serve as a training and materials design and production mechanism. To the extent possible, communication between the various tiers will be facilitated through direct association of the members of one in the activities of the other. The three tiers are:

1. A network of five regional research, development and training centres located on a regional distribution basis;
2. A network of 71 lifelong education centres located at each of the district (changwad) capitals;

3. A network of 50,000 rural adult centres (one in each village) whose work will be co-ordinated and planned by village block (tambon) committees, of which there are 5,000.

Each regional centre will be provided with classroom, workshop, library, administration and printing facilities covering an area of 4,527 square metres. In addition, they will be provided with dormitory to accommodate 150 people (2,054 square metres) and housing for professional staff and junior staff totalling 1,870 square metres.

As it is expected that the centres will be involved in agricultural demonstration activities, each centre will be provided with a site of at least 200 Rai (80 acres). More than adequate sites have already been selected and acquired for the Northern Centre at Lampang and the North-eastern Centre at Ubon Ratchathani (which will take over the facilities and site of the existing TUFEC Centre).

The entire network will be part of the Adult Education Division, which will appoint directors and staff members and have the immediate and daily responsibility for its operation. Each centre will be equipped in such a way that it can function as a self-contained unit of materials design and production and will have housing facilities to enable it to conduct various training activities. The central plain centre at Ratchaburi or Nakhon Pathom will be associated with Silpakorn University and its Department of Adult Education. The specific roles of these centres are as follows:

1. To undertake research on education needs of individuals and communities based on the socio-economic conditions of the population in the areas under each Centre's responsibility;

2. To develop, test, and revise all curricular materials (texts, supplementary readers and various instructional aids) for adult education programmes at all levels. The centre, assisted by appropriate specialists and based upon its target population studies, will determine the substance of the curricula;

3. To plan, organize and conduct training programmes for programme administrators, supervisors, instructors and related personnel;

4. To evaluate the efficiency of on-going activities;

5. To devise and experiment with new instructional approaches in adult education;

6. To assist provincial and district education officers in operating adult education programmes by providing them with up-to-date information for decision making and by serving as technical advisers;

7. To develop adult education so that it becomes more oriented towards the improvement of the quality of life of the rural population by operating demonstration classes in direct relation to curriculum development and experimentation activities;

8. To serve as co-ordinator of technical aspects of adult education, both for programmes under the Ministry of Education and those under other agencies;

9. To develop and prepare programmes for broadcast on the radio-correspondence activities, and for publication in newspapers.

Tier I: Research, Development and Training Centres

Their primary functions are the design and production of materials for the various activities to be conducted at the other two levels, as well as the training of adult education personnel for all activities. Four of these centres will be located at regions as follows:

1. North-eastern centre at Ubon Ratchathani to be responsible for 16 provinces in the north-east;
2. Northern centre at Lampang to be responsible for 15 provinces in the north;
3. Southern centre at Songkla to be responsible for 14 provinces in the south;
4. Central Plain centre at Ratchaburi or Nakhon Pathom to be responsible for 26 provinces in the Central Plain.

The fifth centre will be located in Bangkok and will serve in the dual capacity of a headquarters centre and research and development centre for the city of Bangkok.

Tier II: Urban Lifelong Education Centres:

It is ultimately intended to establish urban lifelong education centres in each of the functional literacy *changwad* capital cities and the 570 amphoes (district towns). Each of these centres will play a dual role: to provide direct adult education choices to the local adult population, and to operate an extension service unit for the surrounding villages. The specific functions of these centres are:

1. To conduct adult second chance education (level 1 through 6) and functional education programmes for local residents;
2. To conduct vocational and teacher training activities for local residents;
3. To operate a public library for local residents;
4. To organize various cultural activities intended for the local population (e.g. films, lecture series, exhibitions, etc.)
5. To conduct specialized courses in health, nutrition, agriculture, etc., and maintain co-ordination with appropriate agencies.
6. To provide varied activities for "special interest" groups in the rural areas. This will be achieved by providing several vehicles at each centre for the delivery of mobile, short course programmes in villages;

7. To provide courses for personnel associated with village centres.
8. To provide materials for village centres.

Tier III: Rural Adult Learning Centres:

There currently exist in Thailand 3,000 village newspaper reading centres. Each of these consists of a hut built and financed by local initiative. Each such centre qualifies for the receipt of three daily newspapers and, if available, mobile libraries (cases containing a small collection of books). These centres are becoming most popular and are being put up at a growing pace throughout the country. While the expansion of these village centres will be encouraged, an attempt will be made to experiment with different modes of their utilization and the possibility of expanding these into village adult learning centres. For this purpose preparations are being made so that the current (4th) project will enable experimentation in 56 centres. Part of the experiment will be to determine the relative value of the village newspaper reading centres as compared with other village institutions (Wat, school, etc.) as adult learning centres. The experiment will also be utilized to develop other adult educational activities.

Foremost among these will be the further development of interest groups while short-term courses will be provided through the Local Education Committees at the request of villages. These might be on any subject of relevance to the particular needs of villagers.

It is of crucial importance to the village that these activities be based on local initiative and, while workers (most likely students) will be sent to these villages, the actual policy will be determined in each case by a village adult centre committee in an increase of the responsibilities of the currently extant village newspaper centre committees. These centres will have, from the outset, a great deal of autonomy. It is not yet clear whether the level of operation should be the village (mooban) or village blocks (tambon), and this will have to be determined during the course of the pilot project.

Innovative features:

1. The decentralization of the administration of adult education offers greater flexibility in the initiation and planning, site selection, personnel recruitment, control and operation of the various units and even in the evaluation of students.
2. The decentralization also offers greater flexibility in curriculum development, production of regional and local materials, running of local courses, and evaluation of local programmes.
3. The decentralization facilitates the delivery of varied educational services, techniques and instructional courses.

Source: "National Inventory of Educational Innovation"
Educational Planning Division, Ministry of Education,
Bangkok, Thailand.

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification:
(for the use
of receiver:

Country: THAILAND EIA No: 94

No: 7 Date of issue: December 1976

Title: PROJECT FOR STUDENT TEACHERS TO ASSIST IN THE DEVELOPMENT OF RURAL COMMUNITIES

Background:

In the rural areas of Thailand, there is a "District Committee" working for a group of villages in the development and improvement of rural life. The committee plans and administers projects to serve the needs of the local people and to raise their standard of living, for example, the construction of roads, wells, schools, and health centres. In most cases, the head teacher of the village school is appointed as secretary and member of the committee. A project was developed at Chombeung Teachers College, Ratchaburi, for student teachers to work with such a committee and at the same time to assist in developing the community where he practises teaching.

Objectives:

The project aims at preparing student teachers for the development of rural communities in line with the government policy in rural development. The specific objectives are:

1. to enable student teachers to acquire knowledge and skills necessary for designing, administration and management of rural development projects;
2. to enable student teachers to understand the problems and issues of rural development and how to work with others for rural development.

Scope of the project:

This project concerns the student teachers who will be sent to out-of-town schools within the province of Ratchaburi. With the consent of the District Committee, the student teachers will be sent out to assist in working on development projects in addition to their practice teaching.

Implementation:

Three steps of work for involvement of the student teachers have been developed. Firstly, the student teachers are expected to collect necessary information and data regarding discussions which have taken place at the District Committee meetings and also the development projects which are being implemented. The second step is their participation in the various current activities of the District Committee. Their roles include asking the villagers to go to the meetings to look after project implementation. The last step is to evaluate their activities, identify problems and find possible solutions. They have to submit reports to their supervisors during and after the project implementation.

Key innovative features:

Since the project is of recent origin, it is difficult to assess the outcomes. It is anticipated, however, that the villagers will be greatly stimulated to take a more active part in the development of their community and that the student teachers themselves will also learn greatly in participating in such community development activities.

Source: "National Inventory of Educational Innovation"
prepared by Educational Planning Division,
Ministry of Education, 1975

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INVENTORY OF EDUCATIONAL INNOVATIONS IN ASIA

Classification: (for the use of receiver)
Country: THAILAND
EIA No: 95
No: 8
Date of issue: December 1976

Title: TEACHING BY CAN COMPUTER

Background:

Educators have tried to bring innovation and technology into education as an attempt to improve teaching. Invention of simple teaching machines with materials available within the country will not only bring great benefit to the improvement of education in the country, but also will help convince people of the country of their own ability for producing such machines.

At the Thai Language Teaching Unit of Phetchaburi Teachers College, Thailand, an inexpensive, simple electronic teaching machine with the use of milk can was developed and it was named as "Can Computer" or "Thanu Brain". With the testing and experimentation of this machine at the college and other educational institutes, they have produced more of this teaching aid and have also had opportunities of bringing the machine on the air for the purpose of disseminating the idea by radio programmes. In 1974, the Department of Teacher Training, Ministry of Education, sponsored an in-service training on the teaching machines "the can computer" and lessons given with the aid of this in teaching Thai language at Petchaburi Teachers College. Fifty-two instructors from 26 teachers colleges received the in-service training.

Objectives:

1. To develop teachers' skills necessary to produce and use inexpensive but high quality teaching materials;
2. To encourage learners to learn by themselves according to their individual differences.

Scope of the project:

The project is undertaken to prepare instructors teaching at teachers colleges in Thailand. It thus covers the training of instructors from teachers colleges, teachers from elementary and secondary schools all over Thailand to be able to make and use the machine.

Implementation of the Project: Operation of the Machine

In general computers, data are fed and the machine gives answers. But for the can computer, the producers of lessons give hidden answers on lesson cards in electronic circle. When a learner touches his lesson card, which works like data of general computers, at the lever of the machine, it will give answers in various sound signals according to the agreement.

If the machine is in a ready condition, when switched on it will give a constant sound signal. The lever is touched by a lesson card, the sound signal will change to the signal according to the agreement. If it is not in use, it should be switched off, or the sound signal will continue constantly until the battery is used up.

The can computer which has three main parts - electronic circle, the can as its structure and the lever, is powered by a 9-volt flat battery. The 220 volts A.C. electric current can be used if it is adapted to 9 volts D.C. current. In teaching with the 'can computer' there must be (i) the can computer; (ii) suggestion cards and (iii) lesson cards. A suggestion card tells how to learn with the machine. It is printed on a sheet of paper consisting of a title, introduction, how to learn and come to agreement. One suggestion card is provided for each lesson.

A lesson card consists of a content pad card and subject contents. A content pad card consists of $\frac{1}{4}$ inch electric insulators, 2 metal corks for each card and 1 resistor for each card (discriminator of the sound).

Inputs of the project:

The project is being operated with the support of five local centres. Petchaburi Teachers College is the headquarters, providing necessary co-ordination with these local centres.

In each centre, there are at least a staff of 5 persons working for the project, and each centre has more than 40 can computer teaching machines and 10,000 lesson cards under its responsibility.

Key innovative features of the project:

1. The can computer can be of help in the teaching and learning processes:
   a) It will encourage learners in their studies;
   b) Learners can learn by themselves;
   c) Learners know their answers immediately;
   d) It promotes learning depending on individual differences;
   e) Teachers are encouraged in teaching and interested in producing this machine themselves.
2. The can computer is thus a new invention brought into the teaching and learning processes. It gives answers in sound signals which will be interesting for learners. The right answer is hidden on the lesson card and is not given before it is tested with the machine. This is a kind of learning by which learners find answers by themselves.
3. The can computer is a finished lesson made from a simple electronic system.

Source: "National Inventory of Educational Innovation"
prepared by Educational Planning Division, Ministry of Education,
Bangkok, Thailand.

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